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HIGHER EDUCATION TODAY: Facts In Brief

Cecilia A. Ottinger,
Editor

AMERICAN
COUNCIL ON
EDUCATION

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February 1992

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Division of Policy Analysis and Research

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Foreword

This publication is the third edition of *Higher Education Today: Facts in Brief.* It offers a concise collection of charts and statistical profiles that depict the dynamic nature of American colleges and universities. Trends affecting both students and institutions are highlighted, based on information available from a variety of governmental publications, higher education associations, research reports, and special data tabulations.

Most of the data and charts highlighted in this publication have been reprinted from the "Facts in Brief" feature that appears in *Higher Education and National Affairs*, the biweekly newsletter of the American Council on Education. Statistics have been updated whenever appropriate; regrettably the best available information sometimes is not very recent.

Cecilia Ottinger, Assistant Director, prepared and edited this special publication. Thanks go to Robin Sikula and Eileen O'Brien for their assistance in preparing this publication. We hope that this publication, and the continuing "Facts in Brief" feature in *Higher Education and National Affairs*, offer a convenient and informative resource for understanding key trends affecting higher education.

Elaine El-Khawas
Vice President for Policy Analysis and Research

February 1992

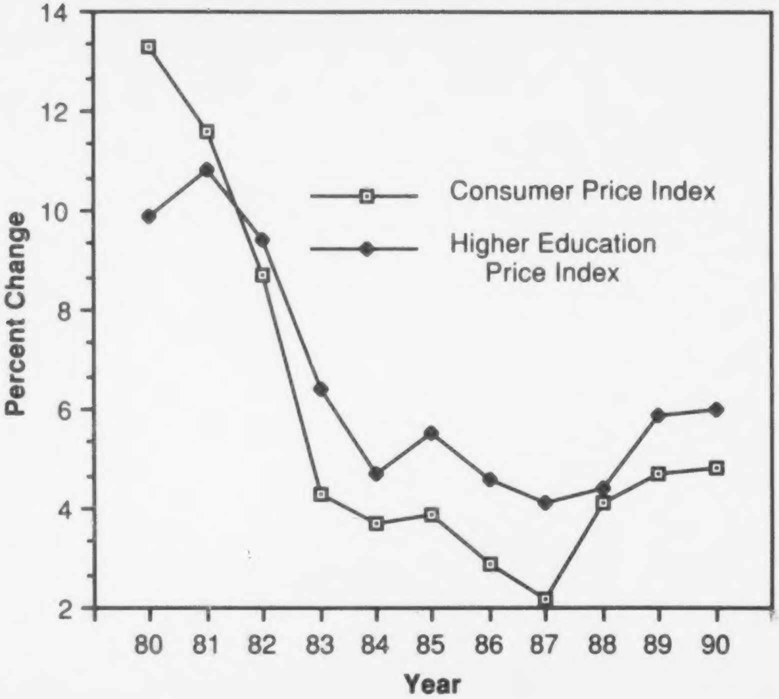
Demographic and Economic Trends

Changes in the Consumer Price Index and the Higher Education Price Index, 1980-1990

- The Consumer Price Index (CPI) measures the rate of inflation—the annual percentage change in the cost of goods and services purchased by consumers. The CPI increased by 4.8 percent in 1990.
- The Congressional Budget Office predicts that the inflation rate will drop to just under 4 percent in 1992 and remain at that level through 1996.
- The Higher Education Price Index (HEPI) measures the annual percentage change in the cost of goods and services purchased by colleges and universities. Since 1982, the growth in HEPI has outpaced inflation.
- Inflation in HEPI decreased from almost 11 percent in 1981 to a low of 4.1 percent in 1987; in 1990 it increased to 6 percent.
- In 1990, colleges and universities paid 41 percent more for goods and services than they did in 1983.

Sources: Research Associates of Washington. *Higher Education Price Indexes: 1990 Update*. For further information, contact Research Associates of Washington, 2605 Klingle Road NW, Washington, DC 20008, (202) 966-3326. *The Economic and Budget Outlook: Fiscal Years 1992-1996*. Congressional Budget Office, 1991.

Changes in CPI and HEPI, 1980-1990

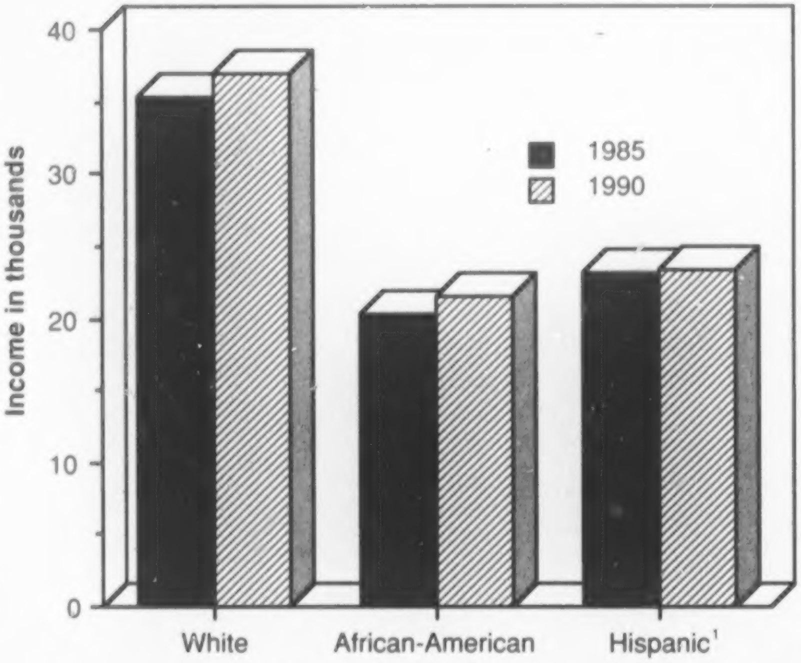


Family Income Down Slightly

- In 1990, median family income stood at $35,353, a 2 percent decrease over 1989 after adjusting for inflation.
- From 1985 to 1990, median family income increased 5 percent after adjusting for inflation.
- In 1990, the median income of families headed by college-educated adults was $49,909, compared to $30,972 for families headed by those with only a high school education.
- Female-headed households with no husband present had the lowest median income in 1990: $16,932.
- In 1990, median family income varied considerably by race and ethnicity. White families had a median income of $36,915, compared to $23,431 for Hispanic families and $21,423 for African American families.
- Between 1989 and 1990, African American families experienced a 1 percent increase in median income, while Hispanic families' income decreased by 5 percent.

Source: U.S. Bureau of the Census. *Money Income and Poverty Status of Families and Persons in the United States: 1990*. Series P-60, No. 174. Selected data from the *1990 Current Population Survey*, U.S. Government Printing Office, Washington, DC, 1991.

Median Family Income by Race and Ethnicity (in 1990 dollars)



[1]Persons of Hispanic origin may be of any race.

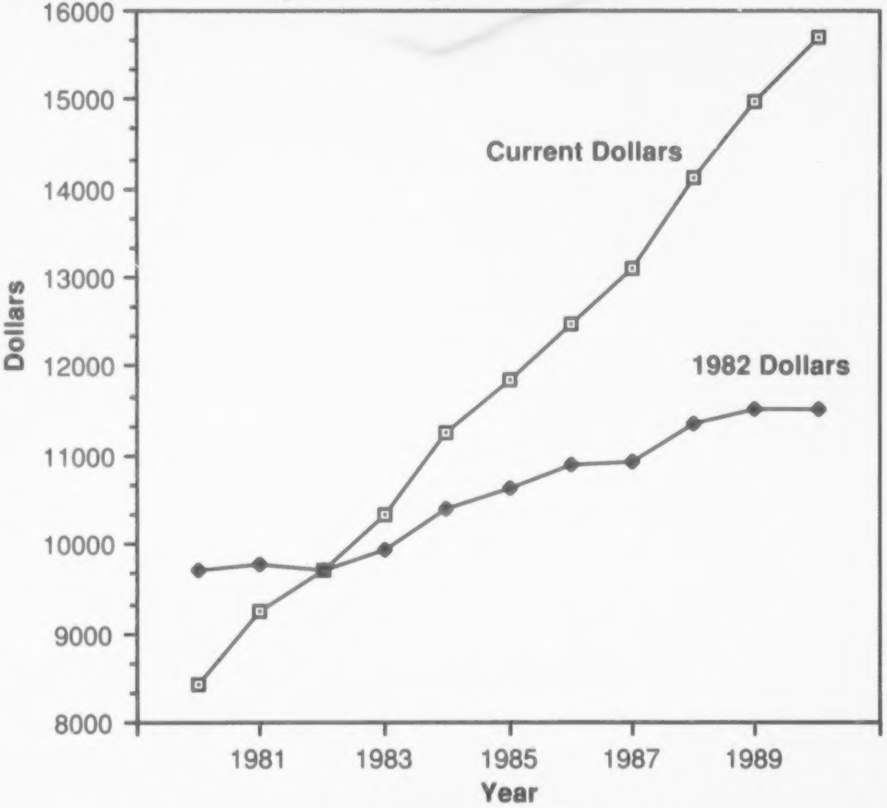
Families Save 5 Percent of Income

Data on the disposable income and savings rates of individuals published by the U.S. Department of Commerce provide a useful perspective on the financial circumstances of Americans and their ability to finance college costs. Disposable income—the amount of money individuals have available after paying taxes—indicates how much money consumers actually have to spend or save.

- In 1990, per capita disposable income was $15,695, up 5 percent over the 1989 amount of $14,973. However, when adjusted for inflation, per capita disposable income held steady during that period.
- Savings as a percentage of disposable income is generally very modest; today individuals save less of their income than they did five and ten years ago. In 1990, savings represented 5 percent of disposable income. In 1980, 7 percent of a person's income went to savings.
- In 1990, savings amounted to about $785 per person.

Source: Department of Commerce, Bureau of Economic Analysis. *Economic Indicators.* Prepared for the Joint Economic Committee by the Council of Economic Advisers, June 1991.

Per Capita Disposable Income



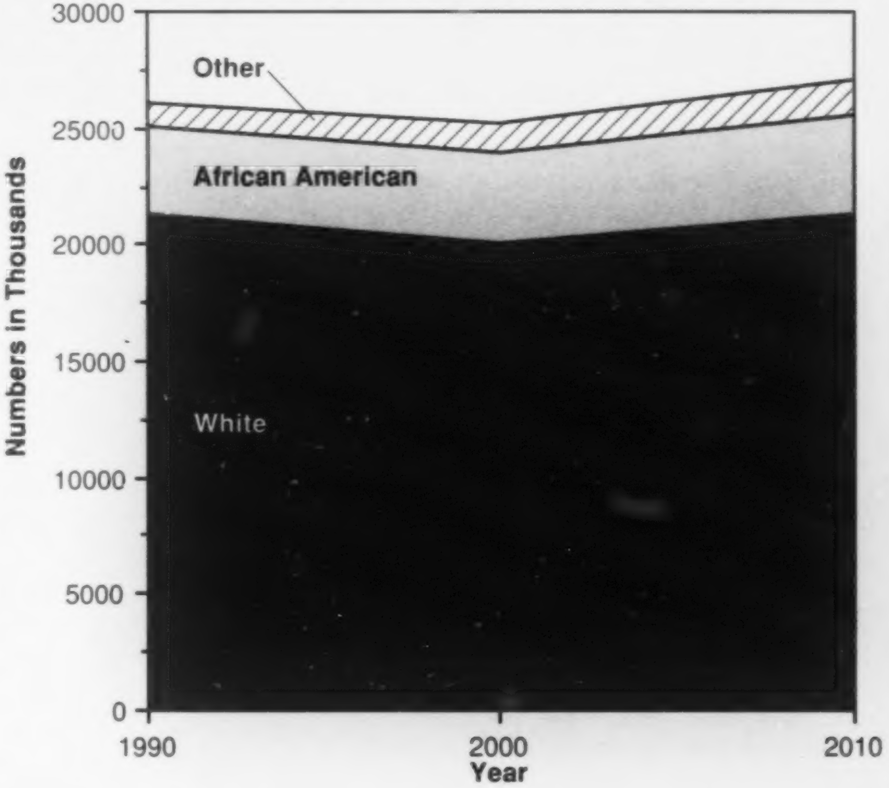
College-Age Population Continues to Decline

Through the year 2000, the traditional college-age population is projected to decline; however, this age group should see an increase again by 2010, according to estimates from the Census Bureau.

- From 1990 to 2000, the number of 18-to-24-year-olds will decline 3 percent. The number of college-age whites is expected to drop (6 percent), while the number of college-age African Americans should increase slightly (3 percent).
- Between 1990 and 2000, the white college-age population is estimated to drop by 1.3 million, contrasted with an increase of 100,000 in the African American college-age population.
- From 2000 to 2010, the number of college-age youth is projected to increase 8 percent, or a total of 1.9 million. Gains in the college-age populations of both whites (7 percent) and African Americans (10 percent) will fuel this projected growth.

Source: U.S. Bureau of the Census. *Projections of the Population of the U.S. by Age, Sex and Race: 1988 to 2080.* Series P-25, No. 1018, U.S. Government Printing Office, Washington, DC, 1989.

Projected College Age Population, 1990-2010



Number of 1991 High School Graduates is Down

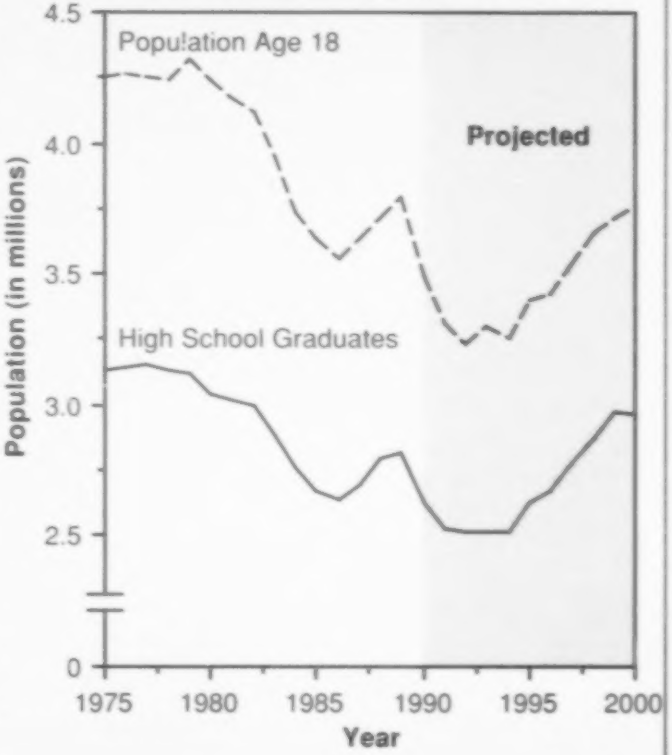
According to the U.S. Department of Education, the number of high school graduates is expected to decline by 4 percent between 1990 and 1991, from 2.63 million to 2.52 million.

- During the period 1986 to 1991, the number of high school graduates was projected to decline by 5 percent. The 1991 figure is 20 percent smaller than in 1977, when an all-time high of 3.15 million pupils graduated from high school.
- Department figures suggest that the size of high school graduating classes will bottom out in 1994, when 2.51 million students are projected to graduate.
- By the end of the century, projections show just under 3 million graduating students, and by 2001, a record-breaking 3.24 million are expected to graduate.
- The number of 18-year olds is expected to be 3.3 million by July 1991.
- The number of 18-year olds is projected to drop to 3.25 million by mid-1994, before rising to 3.76 million by the middle of 2000, close to the 1989 level of 3.79 million.

Note: The graduation projections are based principally on projected grade 12 enrollments, which are influenced by state-by-state retention rates and population projections. The population figures are based on U.S. Bureau of the Census projections.

Source: National Center for Education Statistics (NCES). *Projections of Education Statistics to 2001: An Update*. The publication is available for $9.50 from the U.S. Government Printing Office, Washington, DC 20422, (202) 783-3238. The stock number is 065-000-0040-2.

Trends in High School Completion and 18 Year-Old Population



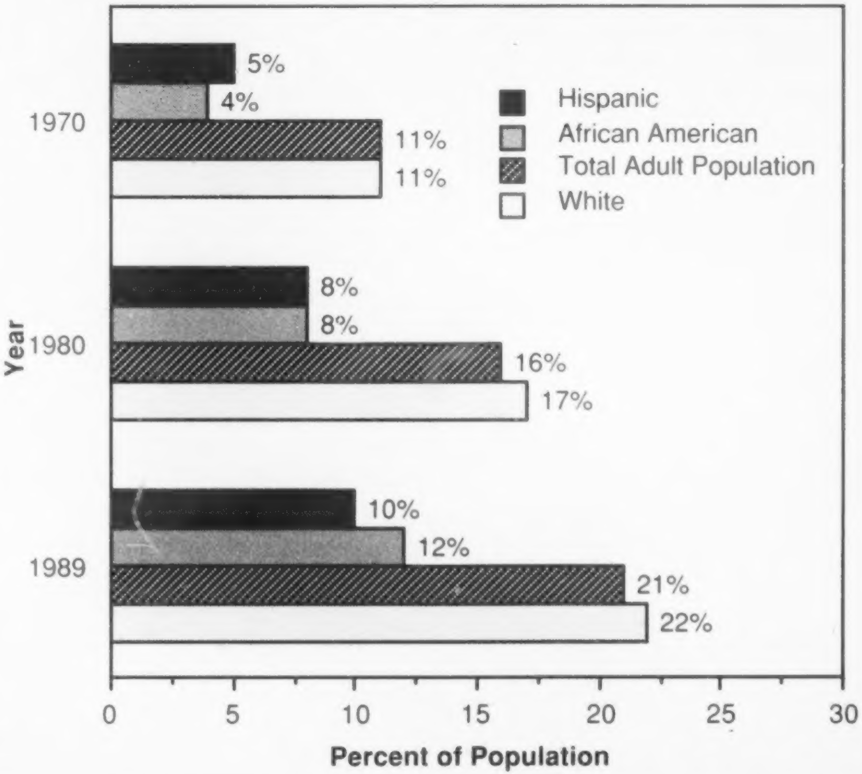
More of the U.S. Population is College-Educated

- During the 1980s, the percentage of college graduates in the U.S. population increased. In 1980, 16 percent of the adult population (25 years and older) had completed four or more years of college, compared to 21 percent in 1989.
- The percent of the population with some college increased slightly in the 1980s; in 1989, 19 percent of the adult population had completed 1 to 3 years of postsecondary education. This is up slightly from 16 percent in 1980.
- In 1980, 8 percent of the African American adult population had attended four or more years of college; by 1989, that figure had risen to 12 percent.
- Between 1980 and 1989, the percent of the Hispanic population with four or more years of college increased slightly, from 8 percent to 10 percent.

Sources: U.S. Census Bureau. *Statistical Abstract of the United States, 1990.* (110th edition) Washington, DC, 1990.

U.S. Census Bureau. *Current Population Reports, Educational Attainment in the United States: March 1989 and 1988.* Series P-20, No. 451. Washington, DC, 1991.

Adults with Four or More Years of College



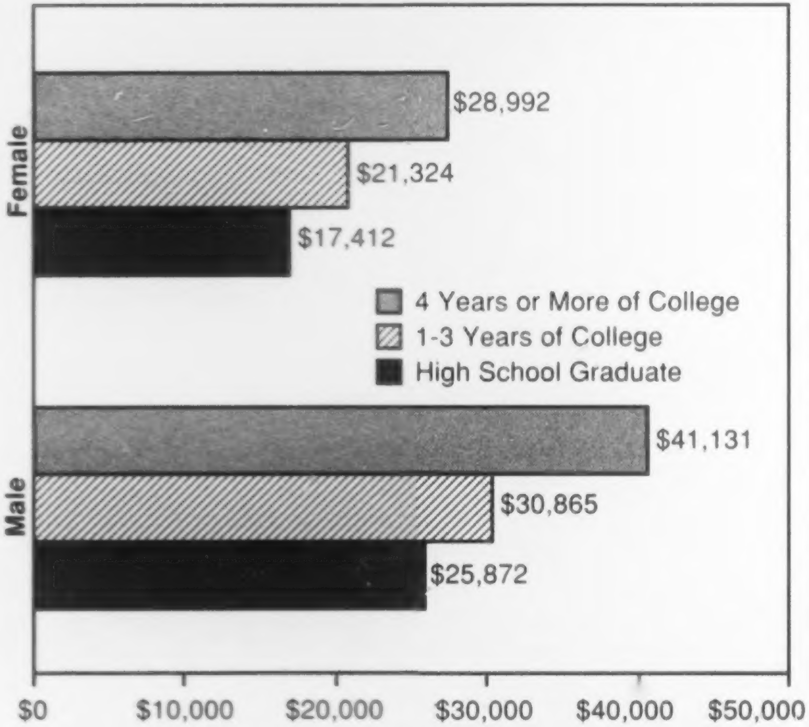
College Graduates Earn More

The higher the level of education, the better the pay. Adults (25 years and older) with postsecondary education fare better in terms of income than those with only a high school education.

- In 1990, male college graduates (with four years of college or more) had a median income of $41,131, compared with $25,872 for males with only a high school education.
- Women college graduates also fared better. The 1990 median income for women with four years or more of college was $28,992, while those with only a high school diploma had a median income of $17,412.
- Disparities between the salaries of women and men continue to exist, although college-educated women have higher incomes than those with only a high school education. In 1990, college-educated women's income was 30 percent less than that of men with comparable education.
- Individuals with some postsecondary education still fare better than those without it. In 1990, males with one to three years of college earned a median income 19 percent greater than high school graduates ($30,865 vs. $25,872).

Source: U.S. Bureau of the Census, Current Population Reports. *Money Income of Households, Families, and Persons in the United States: 1990*. Series P-60, No. 174. U.S. Government Printing Office, Washington, DC 20402.

Education and Median Income of Adults, 1990



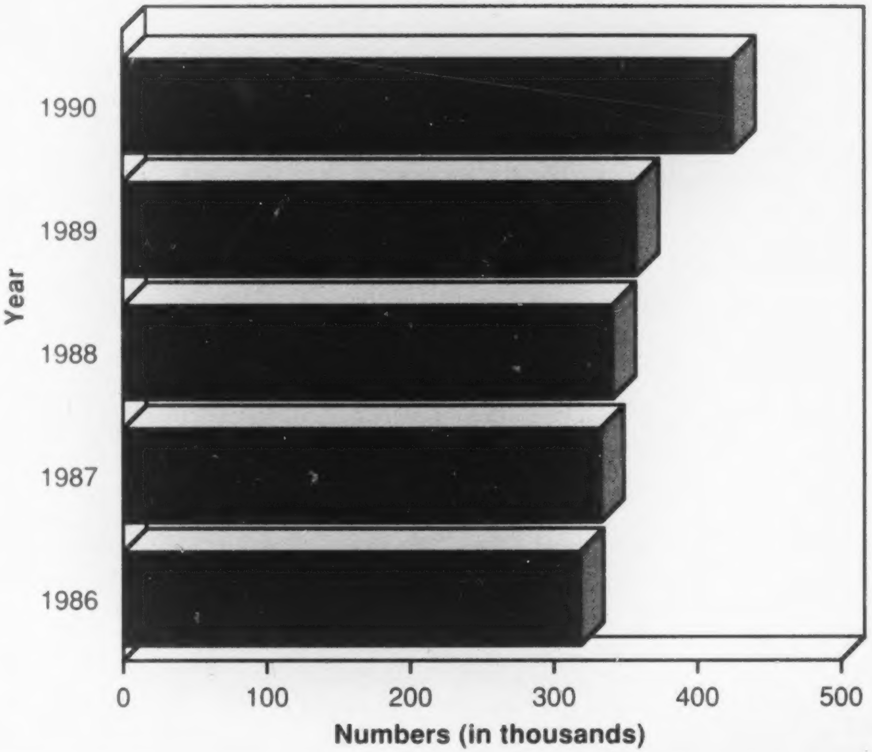
Note: Data is for year-round full-time workers, 25 years old and older.

Number of GED Test Takers Is Up

- In 1990, 763,618 individuals took the General Educational Development (GED) Tests, a 12 percent increase over 1989, when 682,728 people took the high school equivalency exams. This gain in test takers reverses a pattern of declining participation during the past decade.
- Seventy percent of the 1990 examinees qualified for GED diplomas on the basis of their test results.
- The 431,231 GED diplomas awarded last year account for about one-eighth of the high school diplomas issued in the U.S.
- More than half (56 percent) of those who took the tests last year planned to continue their education. This proportion is higher than at any other time in the program's history.
- In 1990, the average age of GED examinees was 26.5 years. However, nearly one-third were 19 and younger, 40 percent were 20 to 29, 19 percent were 30 to 39, and 11 percent were 40 or older.

Source: American Council on Education. *1990 GED Statistical Report.* Copies of the report are available for $10 (prepaid) from the GED Testing Service, Publications, One Dupont Circle, Washington, DC 20036.

Number of GED Test Takers Planning Further Study



Low-Income Students Are Still Less Likely To Attend College

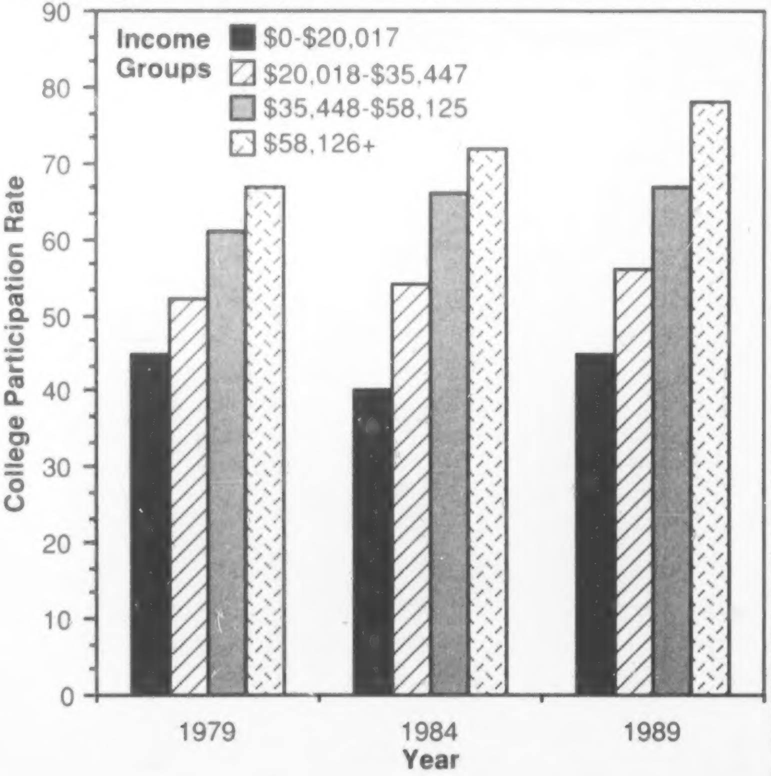
Little progress has been made toward increasing the college participation rates of low-income students, a recent study shows. In 1989, low-income high school graduates were less likely to attend college than graduates from higher-income families.

- In 1989, students whose family incomes were in the bottom quartile ($0 to $20,017) had a college participation rate of 45 percent, compared to a rate of 78 percent for their counterparts from the top income quartile (over $58,125). Ten years earlier, the college participation rate for low-income youth stood at 45 percent, while 67 percent of youth from high-income families attended college.
- During the five-year period 1984 to 1989, the college participation rates of low-income African American high school graduates held steady (38 percent in 1984, 39 percent in 1989).
- In 1989, the college participation rates for low-income white and Hispanic youth were 47 percent and 45 percent.

Note: The data are based on a sample of unmarried 18-to-24-year old high school graduates.

Source: Thomas G. Mortenson and Zhijun Wu. *High School Graduation and College Participation of Young Adults by Family Income Backgrounds, 1970 to 1989.* Used with permission. American College Testing Service (ACT). To order, contact ACT, Educational and Social Research, P.O. Box 168, Iowa City, IA 52243.

College Participation by Income Group



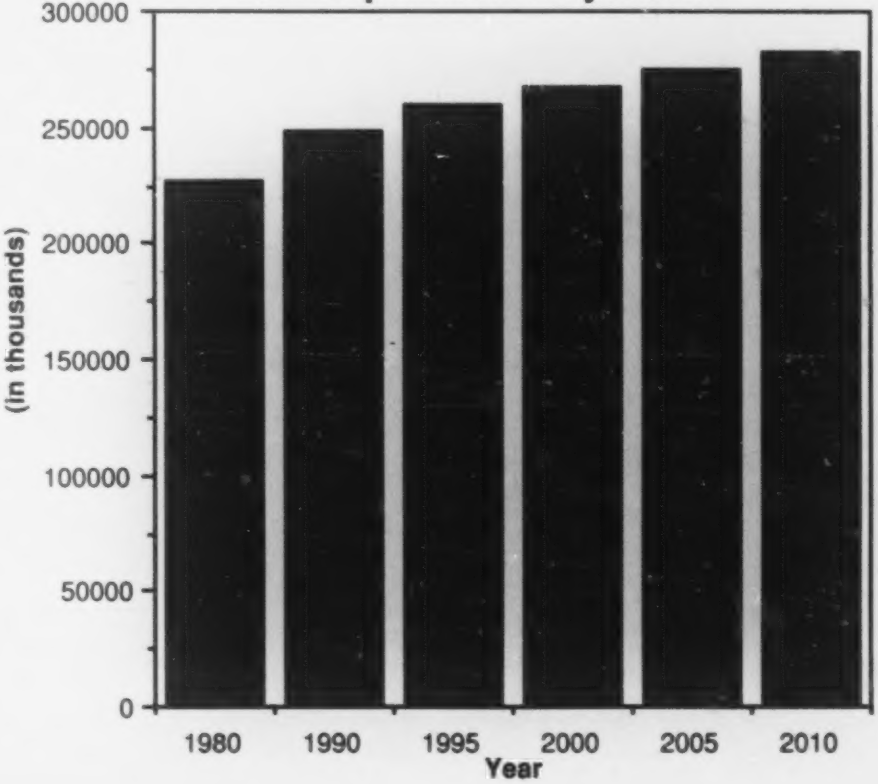
U.S. Population Will Increase Eight Percent by 2000

As of April 1, 1990, 248.7 million people were living in the United States, according to the Census Bureau.

- By the year 2000, the population is expected to reach 267.7 million, an 8 percent increase from 1990.
- More than half of this population growth is projected to occur in five states: California, Texas, Florida, Georgia, and Virginia. In California, the most populous state, the population is expected to reach 33.9 million in 2000.
- Regionally, growth in the South and the West will outpace growth in the nation as a whole. By 2000, these regions are projected to grow by 15.5 million, compared to a gain of only 3.5 million for the rest of the country.
- The U.S. population is expected to reach 282 million in 2010, a 13 percent increase from 1990.

Source: U.S. Bureau of the Census. *Projections of the Population of States by Age, Sex and Race: 1989 to 2010.* Series P-25, No. 1053, U.S. Government Printing Office, Washington, DC, 1990.

U.S. Population Projections

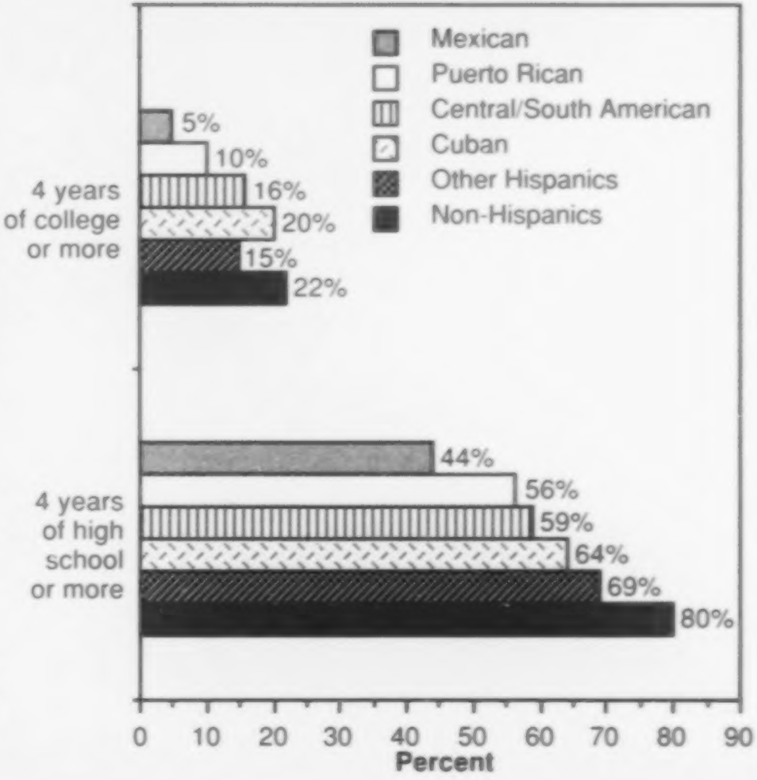


Hispanic Population Continues to Grow

- The nation's Hispanic population has reached 22.3 million, according to preliminary estimates of the 1990 Census. This represents a 53 percent increase from 1980. Persons of Hispanic origin represent 9 percent of the total U.S. population.
- In April 1990, the Hispanic population included, by origin: 13.5 million Mexicans, 2.7 million Puerto Ricans, 1.0 million Cubans, and 5.1 million other Hispanics.
- Hispanic adults (age 25 and older) made small gains in educational attainment from March 1983 to March 1990. The portion of Hispanics completing four years of high school or more rose from 46 percent in 1983 to 51 percent in 1990, while the percentage of Hispanics that had completed four years of college increased slightly from 8 percent in 1983 to 9 percent in 1990.
- From 1982 to 1989, Hispanic median family income has increased 12.4 percent from $20,851 to $23,446.
- Median family incomes varied by origin. In 1989, Mexican families earned a median income of $26,542, compared with $18,943 for Puerto Ricans, $27,890 for Cubans, $24,160 for Central and South Americans and $23,811 for other Hispanics.

Sources: U.S. Bureau of the Census. *U.S. Level Preliminary Post-Enumeration Survey (PES) Estimates of Total Population.* CBpl-131, and *The Hispanic Population in the United States: March 1990.* Current Population Reports, Series P-20, No. 449. U.S. Government Printing Office, Washington, DC, 1991.

Educational Attainment of Hispanics 25 Years and Older, March 1990

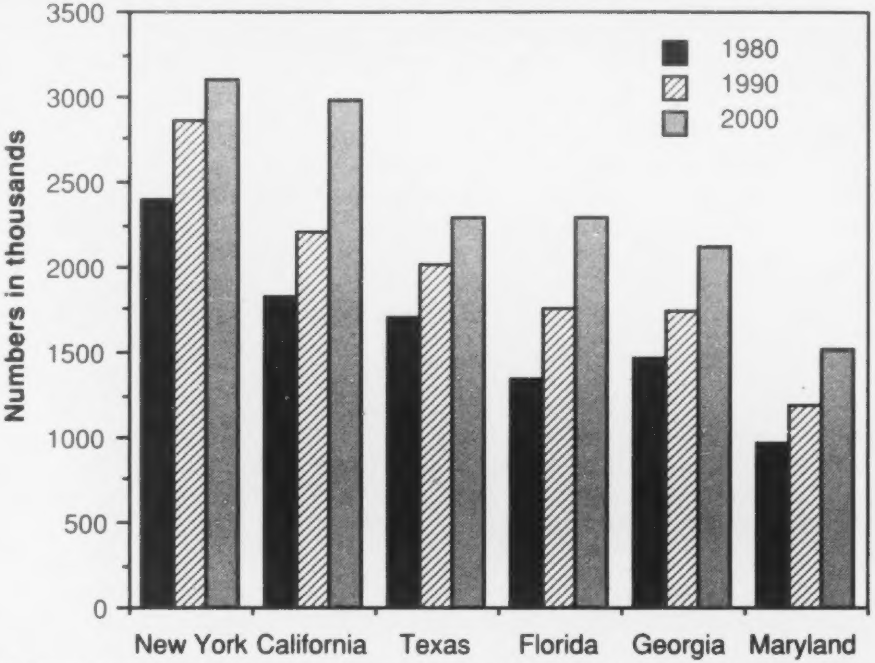


African American Population Growth Concentrated in a Few States

As of April 1, 1990, the African American population was 29.9 million or 12.1 percent of all people living in the United States, according to the Census Bureau. This figure represented a 12 percent increase from the 1980 Census, when African Americans numbered 26.7 million.

- By the year 2000, the African American population is expected to reach 35 million, a 17 percent increase from 1990.
- More than half of this population growth is projected to occur in six states: California, Texas, Florida, Georgia, Illinois and Maryland. In 2000, the largest number of African Americans will live in New York (3.1 million).
- Regionally, growth in the South and the West will outpace growth in the nation as a whole. By 2000, the African American population in these regions is projected to grow by 1.8 million, compared with a gain of only 3.2 million for African Americans in the rest of the country.
- The African American population is expected to reach 38.7 million in 2010, a 29 percent increase from 1990.

Six States with the Largest African American Population, 1980 to 2000

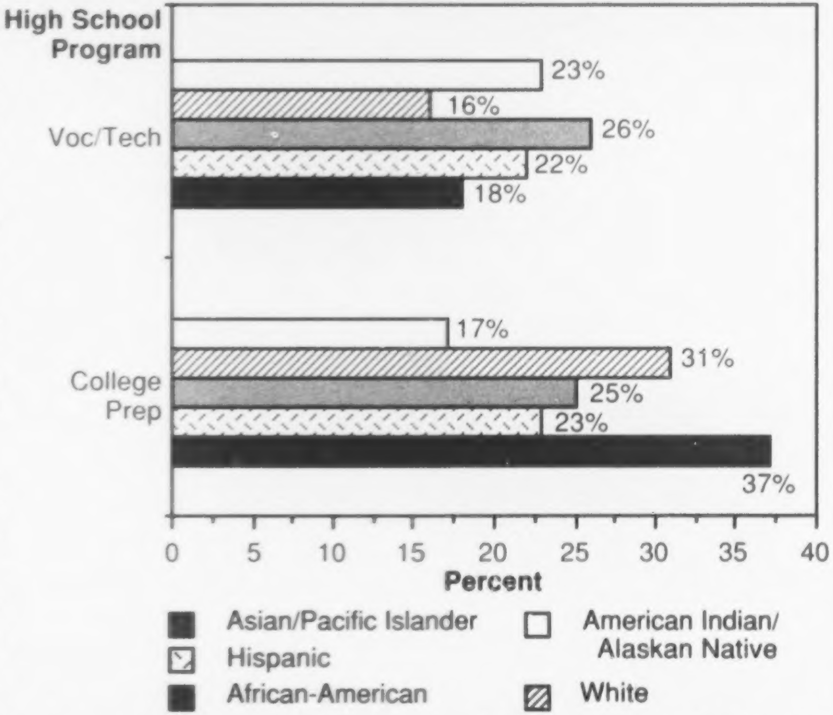


Source: U.S. Bureau of the Census. *Projections of the Population of the U.S. by Age, Sex and Race: 1989 to 2010.* Series P-25, No. 1053, U.S. Government Printing Office, Washington, DC, 1990.

Profile of American Indians/Alaskan Natives

- In 1988, the number of American Indians/Alaskan Natives in the U.S. population was approximately 1.7 million, a 19 percent increase since 1980.
- The median age of the American Indian/Alaskan Native population was 23.5 years in 1980, compared to 30.0 years for the population as a whole.
- According to the 1980 Census, almost 70 percent of American Indians/Alaskan Natives resided in just 10 states.
- In 1988, American Indians/Alaskan Natives had a high school dropout rate of 36 percent, compared to 20 percent for the population overall.
- In academic year 1988-89, 91,753 American Indians/Alaskan Natives were enrolled in postsecondary education institutions, which represents the largest number ever to attend colleges and universities.
- However, American Indians/Alaskan Natives have not made any gains proportionally. This group represents only one percent of all students enrolled in postsecondary education.
- In 1988, American Indian/Alaskan Native eighth graders were less likely to plan to enroll in a college preparatory high school program than any other racial/ethnic group.

Percentage of Eighth Graders Planning to Enroll in Selected High School Programs, 1988



Source: Institute for Educational Leadership (IEL)/Center for Demographic Policy. *The Demographics of American Indians: One Percent of the People, Fifty Percent of the Diversity*. Copies are available for $12 from IEL/Center for Demographic Policy, 1001 Connecticut Ave., NW, Suite 310, Washington, DC 20036.

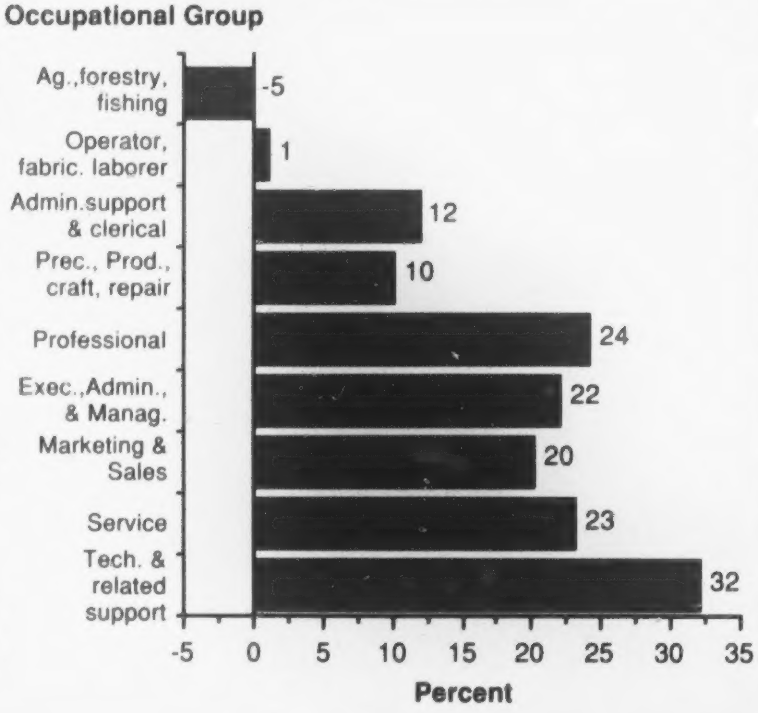
Jobs of the Future Require Postsecondary Education

According to the Bureau of Labor Statistics, 18.1 million jobs are projected to be added to the labor market between 1988 and 2000. Overall, the number of jobs in the labor market will grow by 15 percent.

- Jobs in the professional occupations that require a college education are projected to increase 24 percent between 1988 and 2000. The greatest growth will be in the fields of engineering, computer systems analysis, and health. For example, from 1988-2000, jobs for electrical and electronic engineering are projected to increase by 48 percent.
- In contrast, occupations with a large proportion of workers who are high school graduates are expected to experience the least growth or even experience a decline. Currently, half the workers who are operators, fabricators, and laborers have a high school diploma. However, these occupations are projected to grow by only 1 percent between 1988 and 2000.
- Individuals with some postsecondary education can expect to do well in the future. Between 1988 and 2000, jobs in technical and related support are projected to grow by 32 percent, more rapidly than any other occupational group.

Source: Cecilia A. Ottinger. *College Graduates in the Labor Market: Today and the Future.* ACE's Research Brief Series. vol. 1, no. 5, 1990. The series is published eight times a year and is available for $55 for one year (ACE members receive a 10 percent discount). To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036.

Projected Percent Change in Employment, 1988-2000



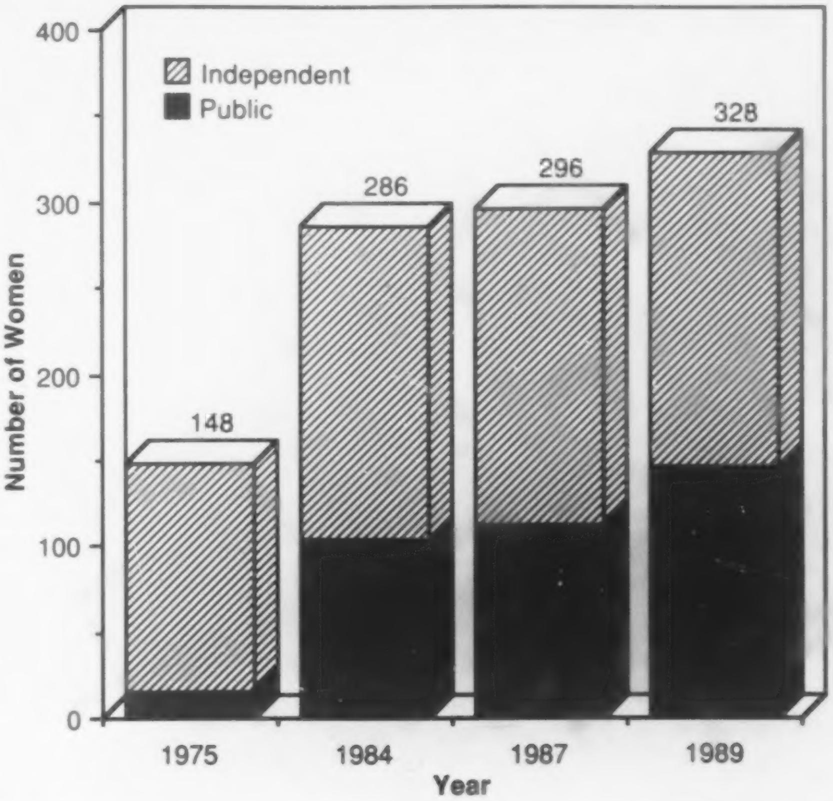
Status of Women And Minorities

Women Presidents Make Gains

- Today, 328 colleges and universities have women chief executive officers (CEOs). This number is more than double the total in 1975, when 148 institutions were headed by women.
- In 1989, just over half of women presidents (55 percent) were heads of independent institutions. Most women CEOs of independent institutions (151) headed four-year colleges and universities.
- Between 1975 and 1989, the number of women CEOs in the independent sector increased 38 percent, from 132 to 182.
- During the same period, the share of women CEOs in public institutions increased considerably. In 1989, 45 percent of all women CEOs were in the public sector, up from 11 percent in 1975.
- In 1989, 70 percent of women CEOs in the public sector were at two-year institutions.
- Minority women represented 13 percent of all women CEOs in 1989.

Source: Judith Touchton and Lynne Davis, editors. *Fact Book on Women in Higher Education.* Macmillan Publishing Co., 1991. The publication is available for $39.95 from Macmillan Publishing Company, Attn: Dave Horvath, 866 Third Ave., New York, NY 10022, (800)323-7455 (individuals), (800) 257-5755 (libraries and institutions).

Women CEOs of Colleges and Universities

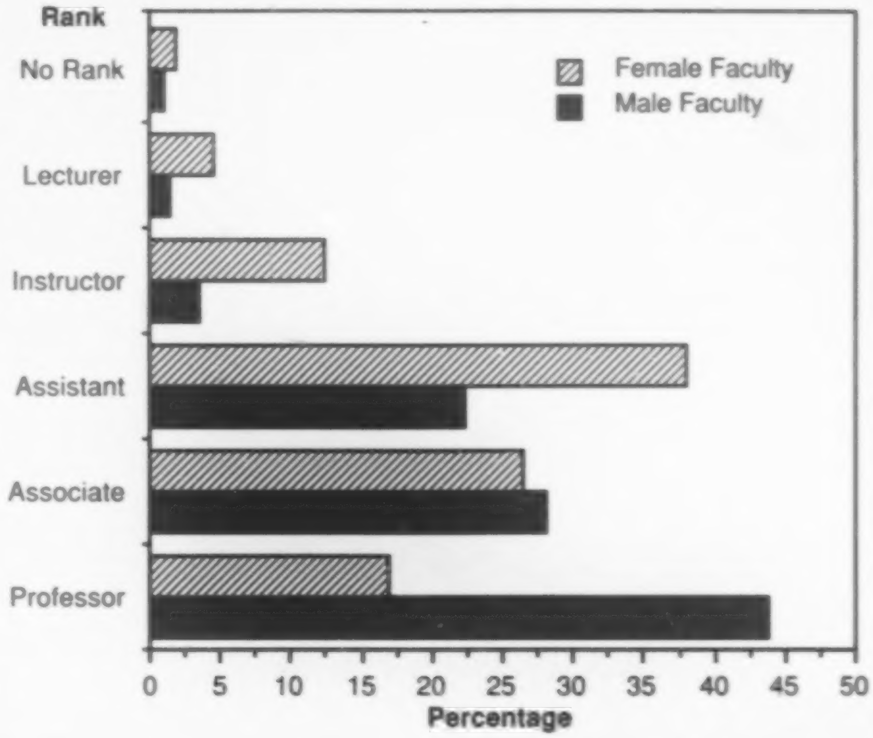


Representation of Women and Men in Faculty Ranks

- Men are represented disproportionately in the upper faculty ranks while women are overrepresented in the lower ranks. For example, during the 1990-91 academic year, 44 percent of male faculty were full professors, compared to 17 percent of women. In contrast, 38 percent of women faculty were at the assistant professor level, compared to 22 percent of men.
- Overall, women faculty members are considerably less likely than men to hold tenured faculty positions. In 1990-91, 45 percent of women held tenured positions, compared to 70 percent of men.
- The gap has increased slightly since 1988-89, when 49 percent of women faculty members were tenured, compared to 71 percent of men.
- A larger percentage of women faculty members at public institutions (47 percent) held tenure than their counterparts at independent and church-affiliated institutions (43 percent and 42 percent).

Source: American Association of University Professors. "The Annual Report on the Economic Status of the Profession, 1990-91." *Academe*, March-April 1991.

Percent Distribution of Faculty by Rank, 1990-91



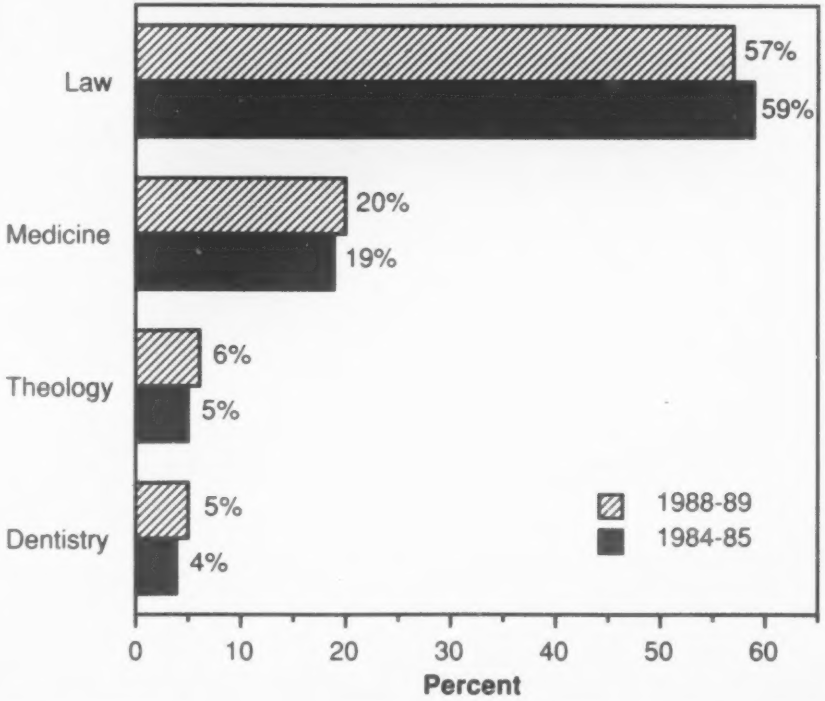
Increasing Numbers of Women are Earning Professional Degrees

- Between 1984-85 and 1988-89, the number of first professional degrees awarded decreased 5 percent from 75,063 in 1984-85 to 70,758 in 1988-89.
- During the period 1985 to 1989, the number of first professional degrees awarded to women increased from 24,608 to 25,691, an increase of 4 percent.
- In 1988-89, 57 percent of all first professional degrees earned by women were in the field of law, a 2 percent decline over 1984-85.
- The number of first professional degrees awarded to women in 1988-89 by field of study, were:

— Law 14,519
— Medicine 5,128
— Theology 1,366
— Dentistry 1,108
— Veterinary Medicine 1,176
— Other 2,394

Source: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 1990.* U.S. Government Printing Office, Washington, DC, and Integrated Postsecondary Education Data Systems (IPEDS), "Completions" survey, unpublished data tabulations, 1991.

Percent of First Professional Degrees Awarded To Women

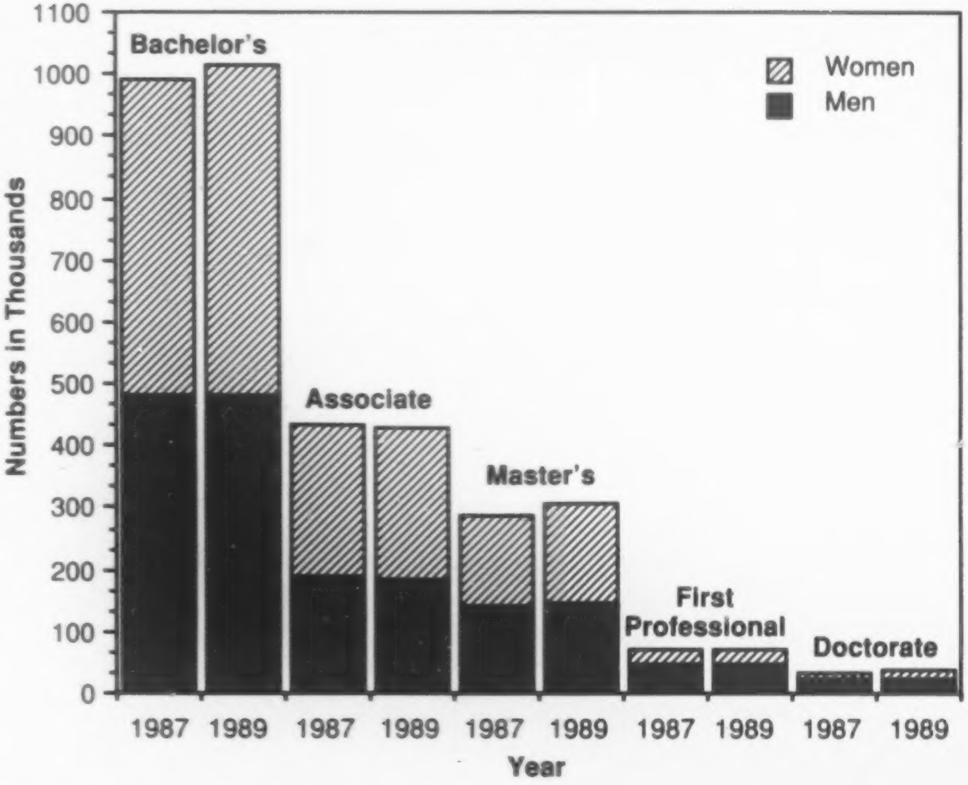


Women Continue to Make Gains in Earned Degrees

- Between 1987 and 1989, the number of degrees awarded by postsecondary institutions held steady. In 1989, a total of 1,860,507 degrees were awarded.
- The number of degrees awarded to women in 1989 increased by 4 percent over 1987, while the number earned by men held steady.
- Women made gains at the master's level, with an 8 percent increase between 1987 and 1989, compared to a 5 percent increase for men.
- The overall number of doctorates awarded increased 5 percent between 1987 and 1989; women earned 9 percent more doctorates in 1989, while men earned 3 percent more than they had two years previously.

Source: U.S. Department of Education. *Race/Ethnicity Trends in Degrees Conferred by Institutions of Higher Education: 1978-79 through 1988-89.* Copies are available for $2.50 from the U.S. Government Printing Office, Washington, DC 20402, (202)783-3238. The document number is 065-000-00433-0.

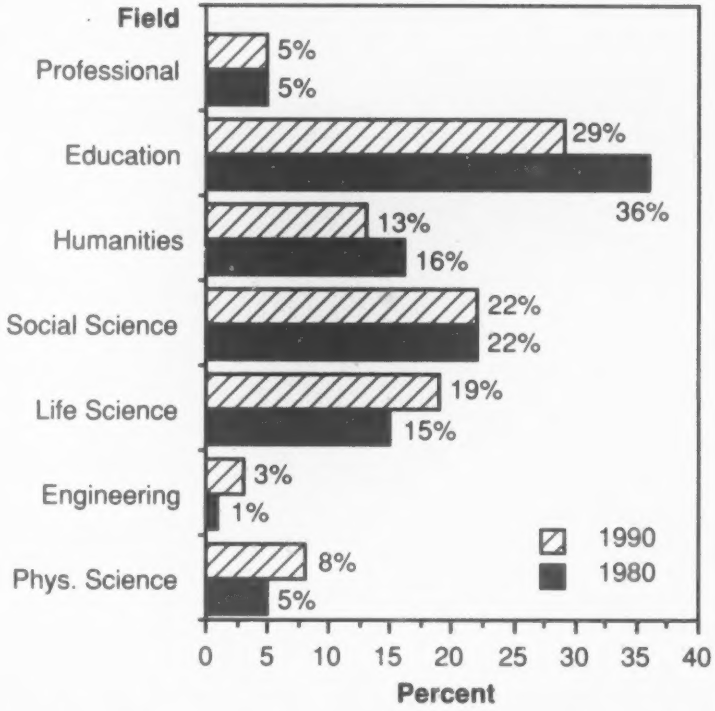
Earned Degrees



Women Earning More Doctorates in a Wider Variety of Fields

- The proportion of doctorates earned by women increased during the 1980s. In 1990, women represented 36 percent of doctorate recipients, compared to 30 percent in 1980.
- In 1990, 13,061 Ph.D.s were awarded to women, a 39 percent increase from the 9,408 Ph.D.s awarded to women in 1980. During the same period, the number of men receiving doctorates increased 6 percent, from 21,613 to 22,966.
- Women continue to receive the majority of their Ph.D.s in the fields of social sciences (22 percent) and education (29 percent).
- However, women made impressive gains in the number of science doctorates earned over the past decade: twice as many women earned doctorates in physical sciences (1,068 in 1990 vs. 502 in 1980), and 43 percent more women earned life science Ph.D.s (2,474, compared to 1,414).
- With the exception of African American women, women in all racial/ethnic groups made impressive gains in the number of Ph.D.s earned in the 1980s:
  - —The number of Ph.D.s earned by African American women dropped 5 percent, from 533 in 1980 to 508 in 1990;
  - —White women earned 30 percent more doctorates in 1990 than in 1980 (9,263 vs. 7,146);
  - —Hispanic women more than doubled the number of Ph.D.s they earned, from 156 in 1980 to 326 in 1990;
  - —American Indian women earned 55 percent more doctorates, rising from 29 Ph.D.s in 1980 to 45 Ph.D.s in 1990.

Percent of Doctorates Earned by Women



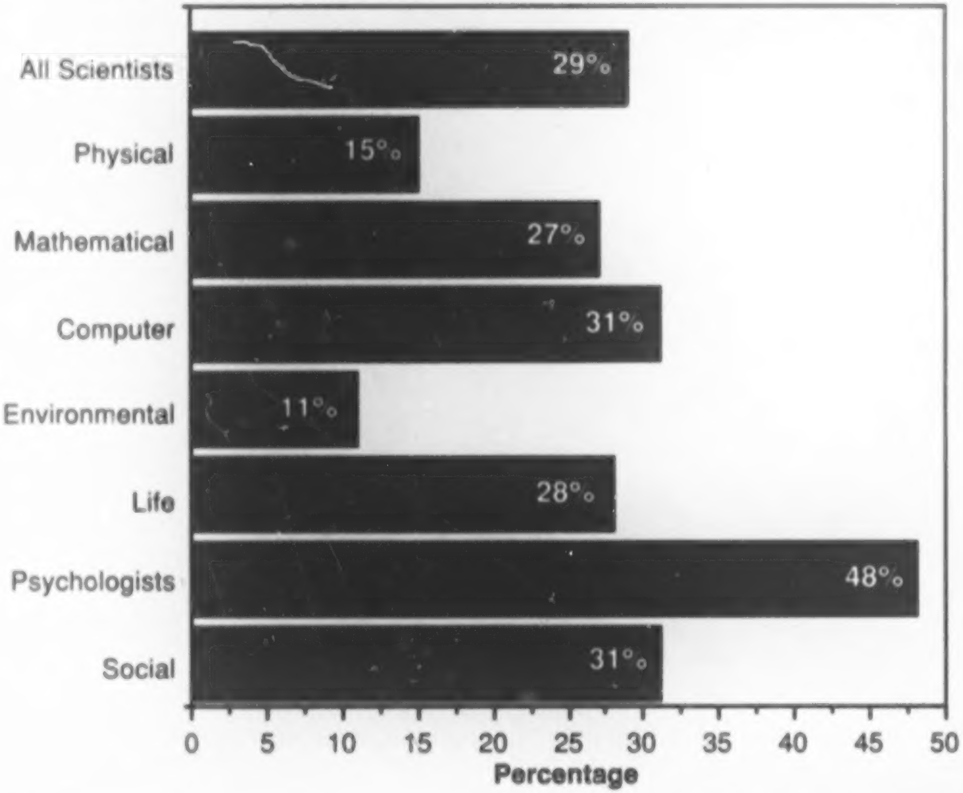
Source: National Research Council. *Summary Report, Doctorate Recipients from United States Universities.* National Academy Press, selected years. For more information, contact the Office of Scientific and Engineering Personnel, National Research Council, 2101 Constitution Avenue NW, Washington, DC 20418.

One-Quarter of All Employed Scientists are Women

- In 1988, more than 3 in 10 scientists were women; however, only 1 in 25 engineers was female.
- In 1988, 868,000 women scientists and engineers were employed in the United States. This represents 16 percent of all scientists and engineers, up from 9 percent in 1978.
- Among women scientists and engineers, about 5 percent were African American (34,500); 5 percent were Asian (36,300); 3 percent were Hispanic (19,600); and less than 1 percent were American Indian (2,700).
- The proportion of women in scientific fields ranged from 11 percent of environmental scientists to 48 percent of psychologists. In engineering, the range was from 3 percent of both mechanical and civil engineers to 8 percent of chemical engineers.

Source: National Science Foundation. *Women and Minorities in Science and Engineering*. January 1990. For more information contact the Demographic Studies Group, National Science Foundation, 1800 G St. NW, Rm. L-611, Washington, DC 20550.

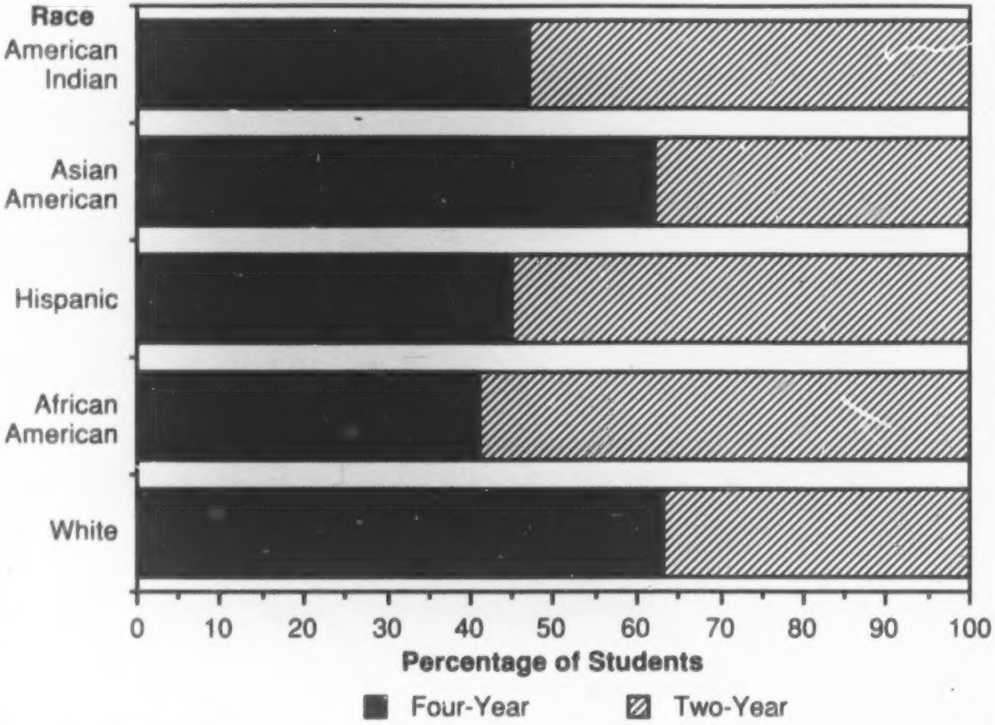
Women Among Employed Scientists, 1988



More African American Males Enroll in College

- The number of African American males enrolled in college increased 7 percent between 1988 and 1990 (from 434,000 to 476,000).
- The number of African American males enrolled in 1990 topped their previous high of 464,000 in 1980.
- During the period 1988 to 1990 the high school completion rates for 18-to-24-year old African American males increased from 72 percent to 76 percent.
- Overall, minority enrollment increased 13 percent at independent colleges and universities and 9 percent at public institutions.
- In 1990, minorities represented 17 percent of four-year students and 23 percent of all two-year students enrolled in higher education.

Source: Deborah Carter and Reginald Wilson, American Council on Education (ACE), *Tenth Annual Report on Minorities in Higher Education*. The report is available for $10.50 (prepaid only) from ACE, Publications, Department M, One Dupont Circle, Washington, D.C. 20036.



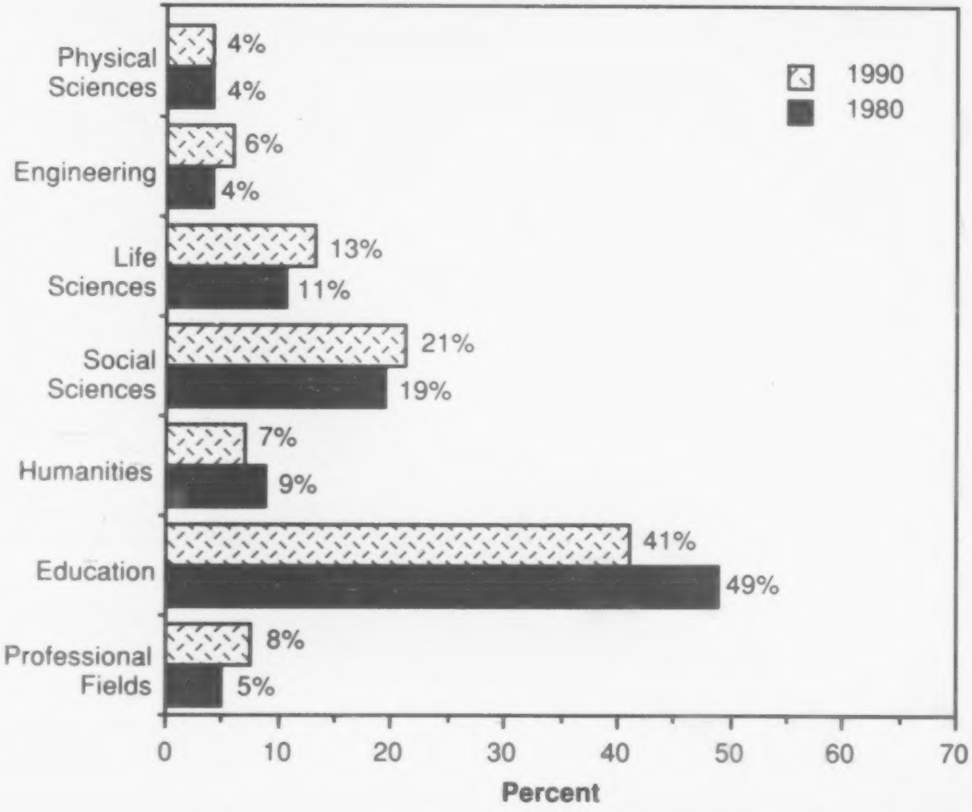
Percentage of Students Enrolled in Two-Year or Four-Year Institutions, 1990

African Americans Receiving Fewer Ph.D.s

- Colleges and universities awarded 36,027 doctorates in 1990, an increase of 5 percent since 1989.
- Between 1985 and 1990, the number of Ph.D.s awarded to African Americans fell by over 9 percent.
  - — Between 1989 and 1990, the number of African American doctorate recipients increased less than one percent from 821 to 828.
- African Americans represented 2 percent of all doctorate recipients in 1990, the same percentage held since 1987.
- The field of education continues to attract the largest proportion of African American doctoral students, although a slightly smaller proportion earned education degrees in 1990 than in 1989.

Source: National Research Council. *Summary Report 1990: Doctorate Recipients From United States Universities.* National Academy Press, 1991. For more information contact the National Research Council, 2101 Constitution Avenue NW, Washington, DC 20418.

Fields Chosen by Black Ph.D.s, 1980 and 1990



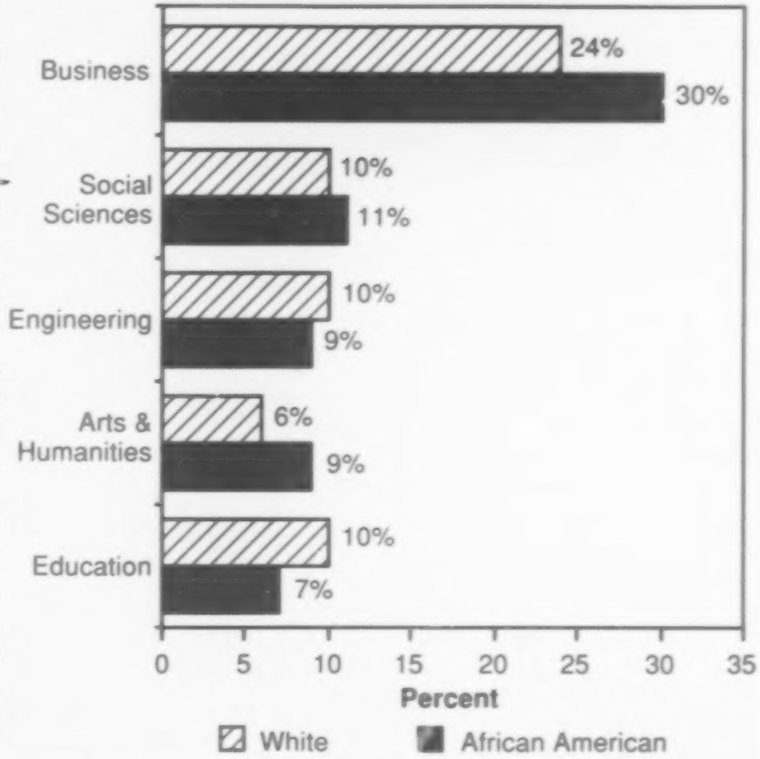
Profile of 1989 African American College Freshmen

A recent report from the Higher Education Research Institute at the University of California, Los Angeles reveals the following characteristics of 1989 African American freshmen:

- In fall 1989, African American freshmen were three times as likely as white freshmen (38 percent versus 13 percent) to come from families with incomes below $20,000.
- African American freshmen were more likely to receive some type of financial aid than their white counterparts. For example, 41 percent of African American freshmen received Pell grants, compared to 20 percent of whites.
- Almost one-third (32 percent) of African American freshmen indicated that they received average high school grades of C+ or lower.
- African Americans were more likely than whites to aspire to postgraduate degrees. For example, 16 percent of African American freshmen indicated that they planned to earn a doctorate, compared to 11 percent of whites.
- African American freshmen were less likely than whites to plan on majoring in education (7 percent versus 10 percent).

Source: Alexander Astin. *The Black Undergraduate: Current Status and Trends in the Characteristics of Freshmen.* Higher Education Research Institute (HERI), University of California, Los Angeles, 1990. To order, contact HERI, UCLA Graduate School of Education, 320 Moore Hall, Los Angeles, CA 90024-1521. Copies are $8, prepaid only.

Probable Major Field Choices of African American and White Freshmen, 1989



Minorities are Earning More Degrees

- In academic year 1988-89, 1,015,239 bachelor's degrees were awarded; 13 percent were earned by minorities.
- Between 1984-85 and 1988-89, the number of bachelor's degrees awarded to all minorities increased by 15 percent, from 112,988 to 130,081.
- Minorities earned 11 percent of all master's degrees in 1988-89, the same percentage as in 1986-87.
- The number of master's degrees earned by nonresident aliens increased 26 percent between 1984-85 and 1988-89.
- In 1988-89, the largest proportion of master's degrees earned by minorities (27 percent) was in the field of education; however, between 1985 and 1989, the proportion of minorities earning degrees in this field declined by 41 percent.
- Between 1984-85 and 1988-89, the number of minorities earning master's degrees in business and management increased by 15 percent.
  - — In 1985, minorities earned 6,106 master's degrees in this field, compared to 7,817 in 1989.

Degrees Awarded by Race and Ethnicity, 1988-89

Race/Ethnicity	Bachelor's	Master's	Doctorate's
American Indian	4,046	1,133	84
Hispanic	29,800	7,270	625
Asian American	38,219	10,714	1,337
African American	58,016	14,076	1,071
White	858,186	241,607	24,895

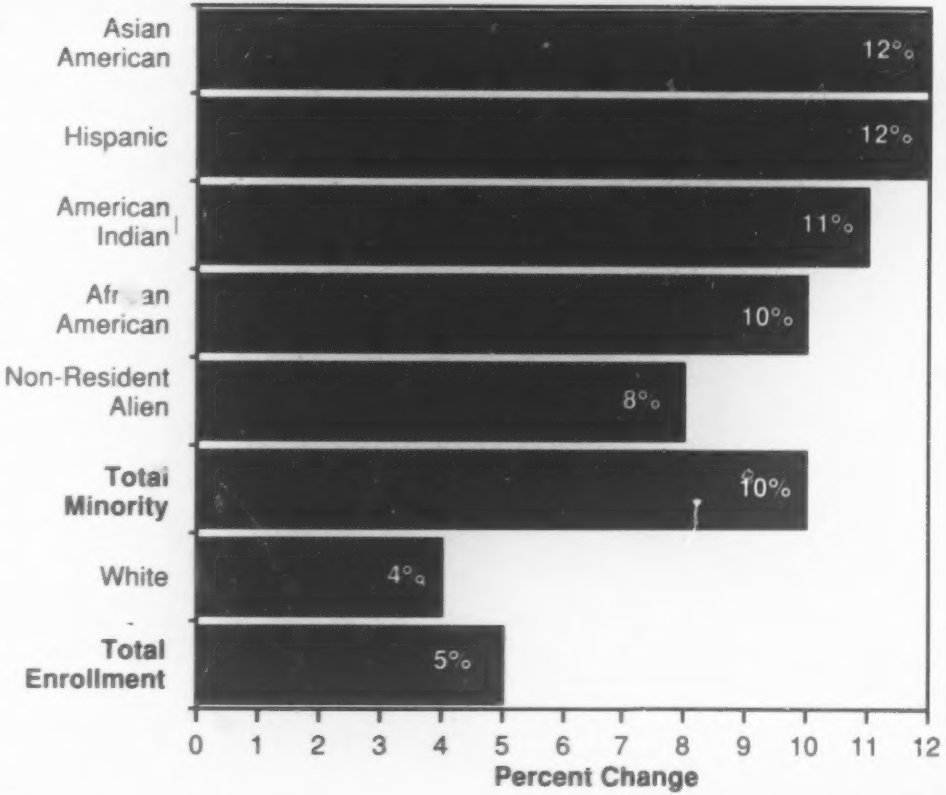
Source: Deborah Carter and Reginald Wilson, American Council on Education (ACE), *Tenth Annual Report on Minorities in Higher Education.* The report is available for $10.50 (prepaid only) from ACE, Publications, Department M, One Dupont Circle, Washington, D.C. 20036.

Minority Enrollment Increases

- Total minority enrollment in U.S. colleges and universities increased 10 percent between 1988 and 1990, the latest years for which such data is available. This increase outpaced total enrollment for all groups in higher education, which grew by 5 percent during this period.
- Between 1988 and 1990, the enrollement of African American males in colleges and universities increased by 7 percent, reversing the downward trend of the previous eight years.
- During the period 1988 to 1990, Hispanic college enrollment rose by almost 12 percent.
- Hispanic enrollment increased at most four-year institutions, rising by 16 percent, compared with 8 percent at two-year colleges. However, the majority of Hispanics (55 percent) are enrolled in two-year colleges.

Source: Deborah Carter and Reginald Wilson, American Council on Education (ACE), *Tenth Annual Report on Minorities in Higher Education.* The report is available for $10.50 (prepaid only) from ACE, Publications, Department M, One Dupont Circle, Washington, D.C. 20036.

Gains in College Enrollments, 1988 to 1990



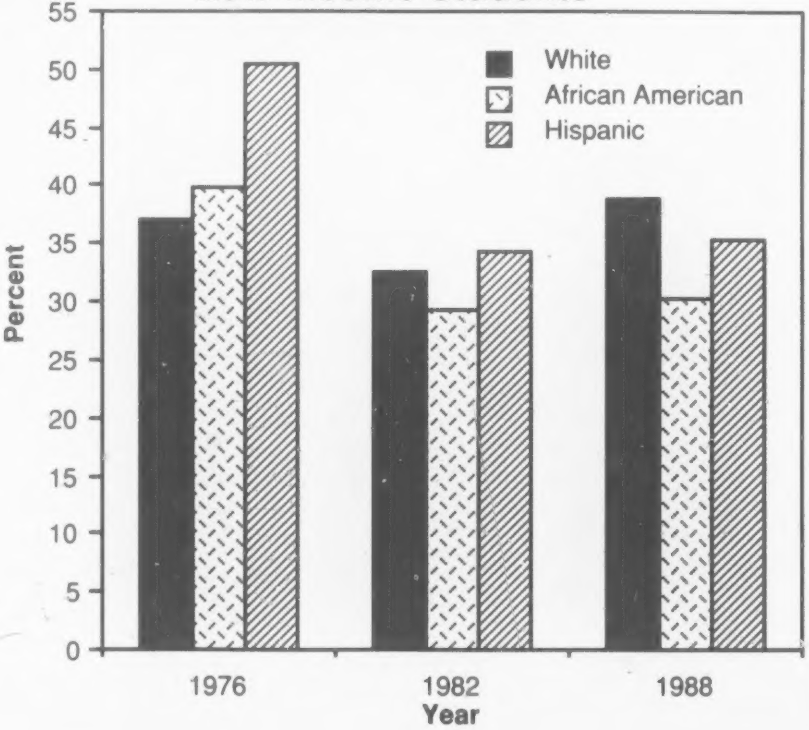
College Participation Rates Drop For Low- and Middle-Income Students

Low- and middle-income African American and Hispanic college-age youth experienced significant declines in their college participation rates since 1976.

- Between 1976 and 1988, the college participation rate for low-income African American youth dropped from 40 percent to 30 percent.
  - — In 1988, only 23 percent of low-income African American males attended college, compared to 36 percent of their female counterparts.
- The college participation rate for low-income Hispanic youth also declined between 1976 and 1988, from 50 percent to 35 percent.
- In 1988, 46 percent of middle-income Hispanics were enrolled in college, down from 53 percent in 1976. The percentage of middle-income African Americans enrolled in college decreased from 53 percent in 1976 to 36 percent in 1988.

Note: The data are based on 18-to-24-year-old high school graduates enrolled in college as of October of that year who are financially dependent on their families.

Source: Office of Minorities in Higher Education, American Council on Education. *Eighth Annual Status Report on Minorities in Higher Education*, 1990. Copies are available from the Office of Minorities in Higher Education, American Council on Education, One Dupont Circle, Washington, DC 20036; $10 per copy, prepaid only.

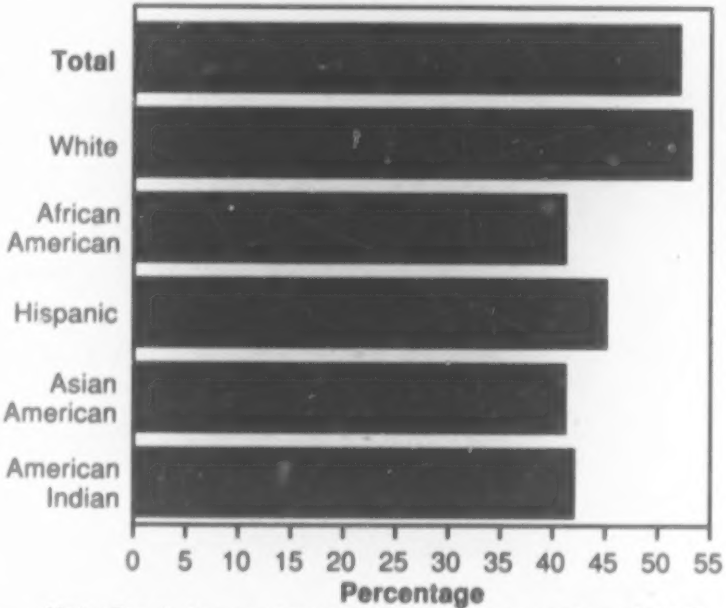


College Participation Rates of Low-Income Students

Profile of Asian Americans in Higher Education

- Just as the Asian American population in the United States more than doubled from 3.5 million in 1980 to 7.3 million in 1990, so did Asian Americans' representation in higher education enrollments.
- The number of Asian Americans enrolled in all higher education institutions rose from 198,000 in 1976 to 497,000 in 1988.
- Most Asian American students (82 percent) attend public institutions, and of these 39 percent were enrolled in public, two-year colleges in 1988.
- From 1979 to 1989, the number of bachelor's degrees awarded to Asian Americans more than doubled (from 15,400 to 38,200), and the number of master's degrees earned by Asian Americans nearly doubled (from 5,500 to 10,700).
- Almost 5 percent of all full-time faculty in U.S. colleges and universities are Asian, and 40 percent of Asian faculty are foreign nationals. However, only 41 percent of Asian faculty are tenured, and more than 30 percent are in non-tenure track positions.
- Significant differences in educational attainment exist among specific groups. For example, in the 1980 Census, only 22 percent of the Hmong population finished high school, compared with more than 80 percent of Asian Indian, Japanese, Indonesian and Pakistani individuals.

Faculty Tenure Rates by Race/Ethnicity, 1989



Note: Faculty tenure rates are calculated as a percentage of all full-time faculty, including those who are not in tenure-track positions.

Source: Eugenia Escueta and Eileen O'Brien. *Asian Americans in Higher Education: Trends and Issues.* ACE Research Brief Series, vol. 2, no. 4, 1991. The series is published eight times a year; a one year subscription is available for $55 (10 percent discount for ACE members). To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

Campus and Institutional Trends

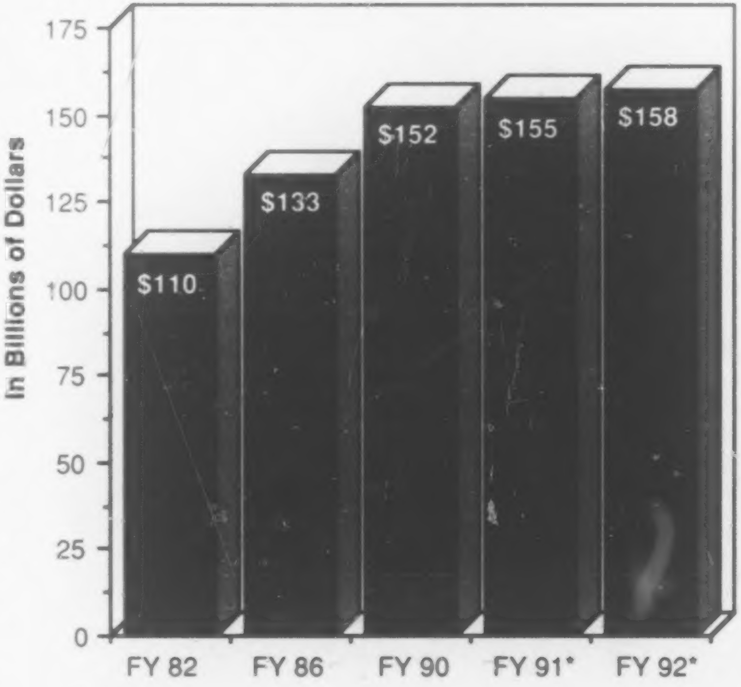
Higher Education is a Major Enterprise

- In 1969-70, there were 2,535 U.S. colleges and universities. Twenty years later, the U.S. had a total of 3,535 higher education institutions, constituting a growth of 40 percent.
- In 1989-90, 47 percent of higher education institutions were independent. Forty-four percent were public, and 9 percent were proprietary institutions.
- During the five year period 1985-86 to 1990-91, higher education expenditures increased 17 percent, after adjusting for inflation.
- Total 1991-92 expenditures by colleges and universities are expected to reach $158 billion; during the last year higher education expenditures held steady, with only a 2 percent increase in constant dollars.
- In 1989, 2.5 million people were employed by higher education institutions. Between 1975 and 1989, the number of people employed by colleges and universities increased by 39 percent (from 1.8 million to 2.5 million). At the same time, enrollment grew by 28 percent.

Sources: Cecilia Ottinger. *The Higher Education Enterprise.* American Council on Education's Research Brief Series, vol. 2, no. 8, 1991. The series is published eight times a year and is available for $55 (10 percent discount to ACE members) for one year. To order contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

U.S. Department of Education. *1991 Back-To-School Forecast.* Washington, DC: August 1991.

Higher Education Expenditures In Constant 1990-91 Dollars FY 1982-FY 1992



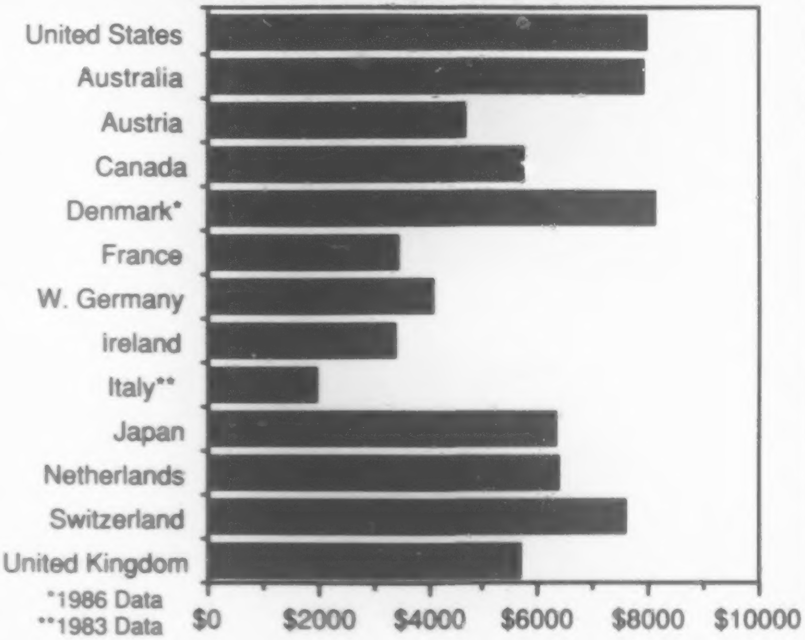
*Estimated

Expenditures and Participation: Comparisons with Other Countries

A recent report compares higher education expenditures and participation among the United States and a number of other countries. The study found that:

- In 1985, compared to a selected group of 35 developing and industrialized countries, the United States spent the highest share (2.4 percent) of its gross national product (GNP) on higher education. Venezuela was the only other country that spent more than 2 percent of its GNP on higher education.
- In 1985, the United States spent nearly $8,000 per student in higher education. Denmark was the only country that spent more, at just over $8,000 per college student, while Australia and Switzerland spent nearly as much as the United States.
- With more than 5 percent of its population enrolled in higher education in 1986, the U.S. had the highest college participation rate of the countries studied. Canada had the next highest rate, at just under 5 percent. No other country reported having more than 4 percent of its population enrolled in postsecondary education.

Higher Ed Expenditures per Student, 1985—Selected Countries



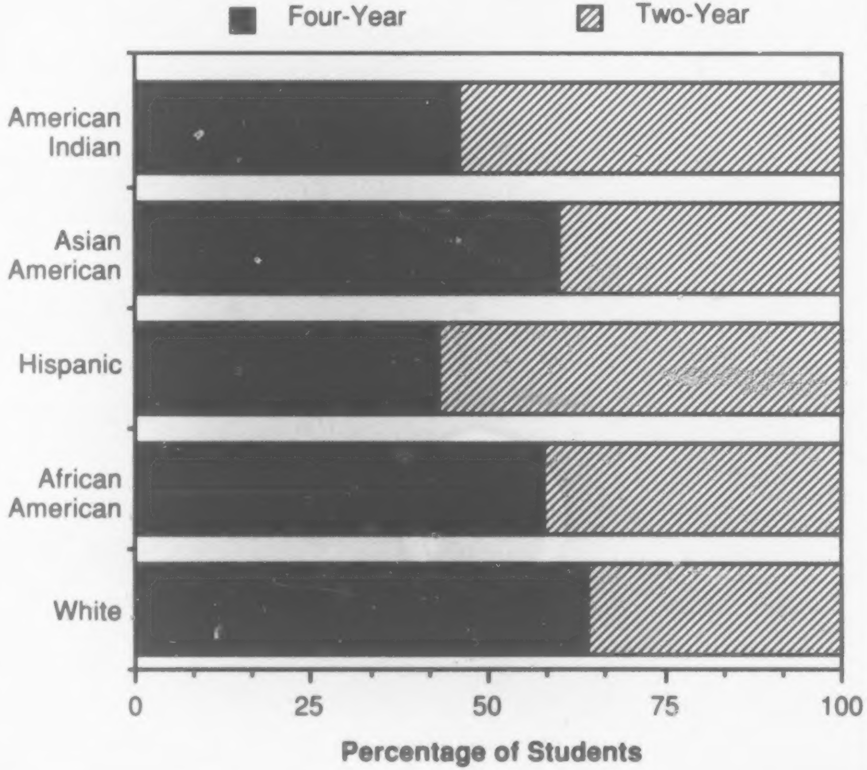
Source: *United Nations Educational, Scientific and Cultural Organization, 1989 Statistical Yearbook* (Paris: UNESCO, 1989), as summarized in *Higher Education Expenditures and Participation: An International Comparison*, ACE's Research Briefs Series, vol. 2, no. 1, 1991. The series is published eight times a year and is available for $55 (10 percent discount to ACE members) for one year. To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

Trends in Community and Junior Colleges

- In 1988, 4.9 million students attended two-year colleges; this represented 43 percent of all undergraduate students enrolled in colleges and universities.
- During the decade 1978 to 1988, enrollment in two-year institutions increased by 23 percent, from 4.0 million to 4.9 million. Enrollment in four-year institutions increased by 14 percent during this period.
- In 1988, more than half (57 percent) of junior and community college students were women.
- Minorities are more likely to attend two-year colleges than whites; in 1988, 46 percent of all minorities enrolled in college attended two-year institutions.
- Between 1983 and 1988, the number of associate degrees awarded declined by 5 percent, from 456,441 to 435,537.
- In 1987, more than half of all junior and community college students were 25 years or older.

Source: Deborah J. Carter. *Community and Junior Colleges, A Recent Profile.* ACE's Research Brief Series, vol. 1, no. 4, 1990. The series is published eight times a year and is available for $55 for one year (10 percent discount for ACE members). To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

Distribution of Students Enrolled in Two-Year and Four-Year Institutions, 1988

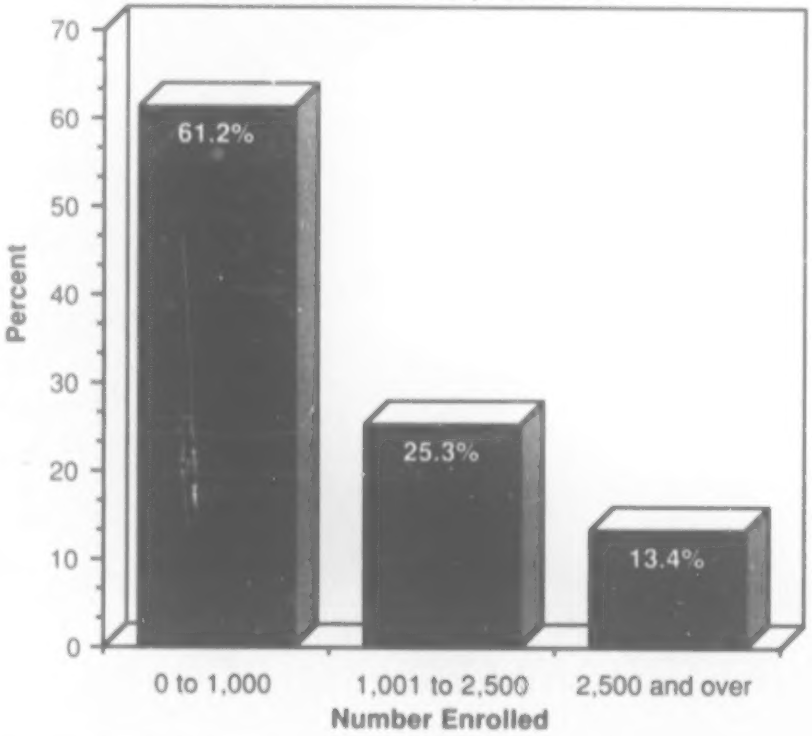


Most Independent Campuses Enroll 1,000 or Fewer Students

- In academic year 1988-89, there were 1,983 independent institutions in the United States and outlying areas; this represents 56 percent of all institutions in that year.
- Between 1987 and 1988, enrollment at independent institutions went from 2.8 million to just under 2.9 million.
- In fall 1988, 2,021,375 million students were enrolled full-time at independent institutions; 865,368 were enrolled part-time.
- In academic year 1988-89, the majority (61.2 percent) of independent institutions had enrollments of 1,000 students or less.
- Most students attending independent non-profit institutions in 1988-89 did so in the Mid East region (29.9 percent). The distribution of enrollment in other regions was: Great Lakes, 16.9 percent; New England, 13.3 percent; Southeast, 15.9 percent; Far West, 9.6 percent; Plains, 7.8 percent; Southwest, 4.7 percent; Rocky Mountains, 2.5 percent; and outlying areas, 3.3 percent.

Source: U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics, 1990.* U.S. Government Printing Office, Washington, DC, and unpublished data tabulations, 1991. For more information, call the National Center for Education Statistics at 1-800-424-1616.

Distribution of Independent Colleges by Enrollment Size, 1988-89

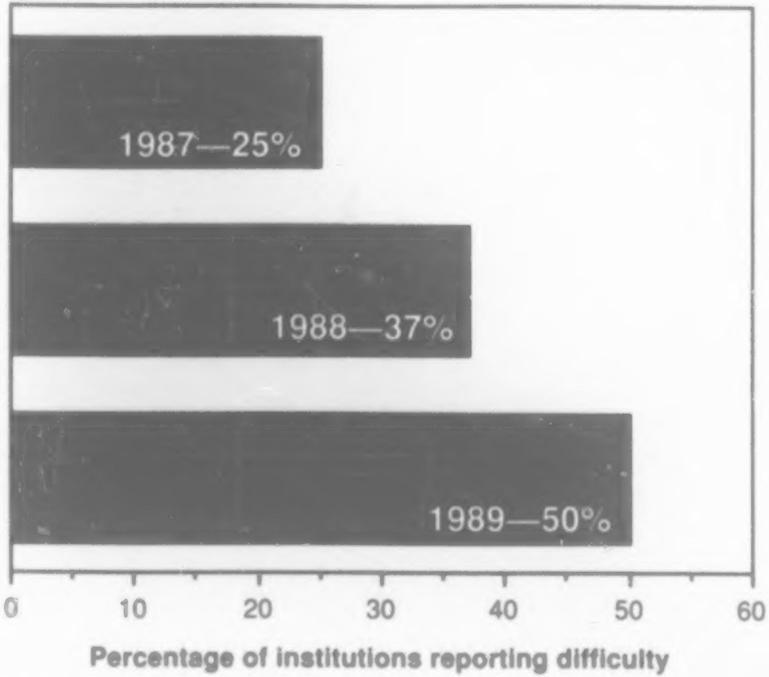


Growing Shortage of College Faculty Members

Data from *Campus Trends, 1989* suggest a growing shortage of college faculty members. Many institutions are having difficulty finding qualified persons to fill faculty positions.

- Half of all colleges and universities surveyed reported it now takes longer to find qualified persons for full-time faculty positions.
- Half of all schools surveyed also reported greater difficulty in hiring top applicants for faculty positions offered to them. In 1987, 25 percent of administrators reported such problems; in 1988, the figure was 37 percent.
- The most difficult fields to recruit for, administrators say, are (in order): business, computer science, mathematics, social sciences (including economics), natural sciences, nursing, and education.
- A small proportion of administrators surveyed (19 percent) reported a decline in the quality of applicants for full-time faculty positions.
- Half of administrators surveyed judged their institution's ability to attract and hold good faculty as "excellent" or "very good." However, one in ten gave their institutions only "fair" or "poor" ratings on this factor.

Difficulty in Getting Top Applicants To Accept Faculty Positions

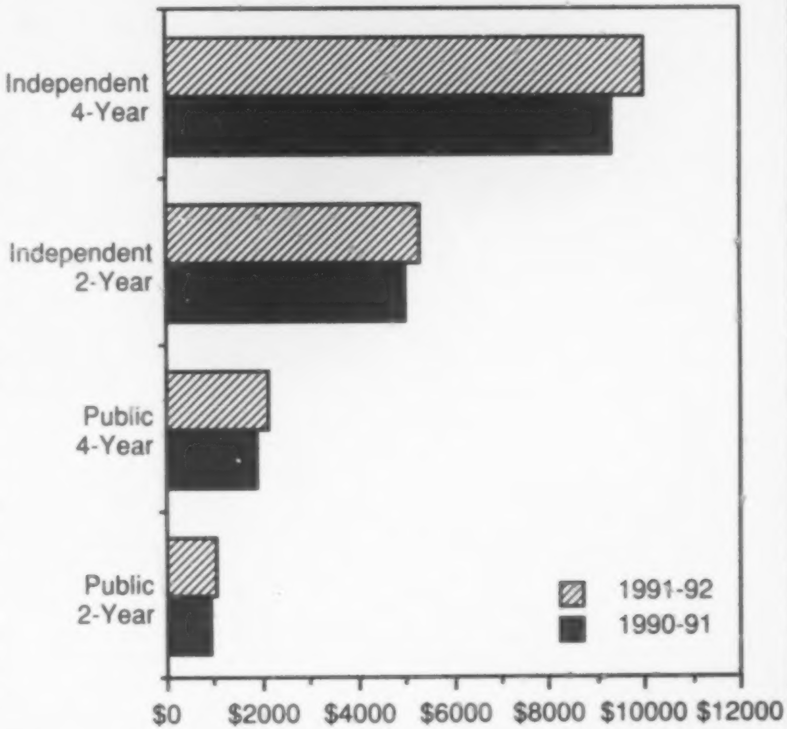


Source: Elaine El-Khawas. *Campus Trends, 1989*. Copies are available for $8 ($5 for ACE members) from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

Tuition and Fees in 1991-92

- Tuition and fees for the average student at a public four-year college will increase to $2,137 in the 1991-92 academic year. At independent four-year institutions the comparable figure will be $10,017. These figures represent increases of 12 percent and 7 percent respectively over 1990-91 charges.
- The average student at a two-year public college can expect to pay 13 percent more than last year for tuition and fees, which increased to $1,022. At independent two-year colleges, the increase was 6 percent, raising the charges to $5,290.
- For the average student at a public four-year college or university, total on-campus expenses—tuition and fees, room and board, books, supplies, and personal items—are estimated to be $7,584. This includes the tuition and fee figure shown above plus $3,351 for room and board, $464 for books and supplies, and $1,147 for other expenses.
- The average student living on campus at an independent four-year institution will face total on-campus expenses of $16,292. This is made up of tuition and fees plus room and board charges of $4,386, books and supplies estimated at $508, and other expenses amounting to $911.
- For the average commuter student at a public two-year college, total expenses are estimated at $4,913. This consists of tuition and fees ($1022) plus $1,543 for board only, $902 for transportation, $480 for books and supplies, and $966 for other expenses.

Average Tuition and Fees for Undergraduates



Source: *The College Board Annual Survey of Colleges, 1991.* New York: College Entrance Examination Board, 1991. Used with permission.

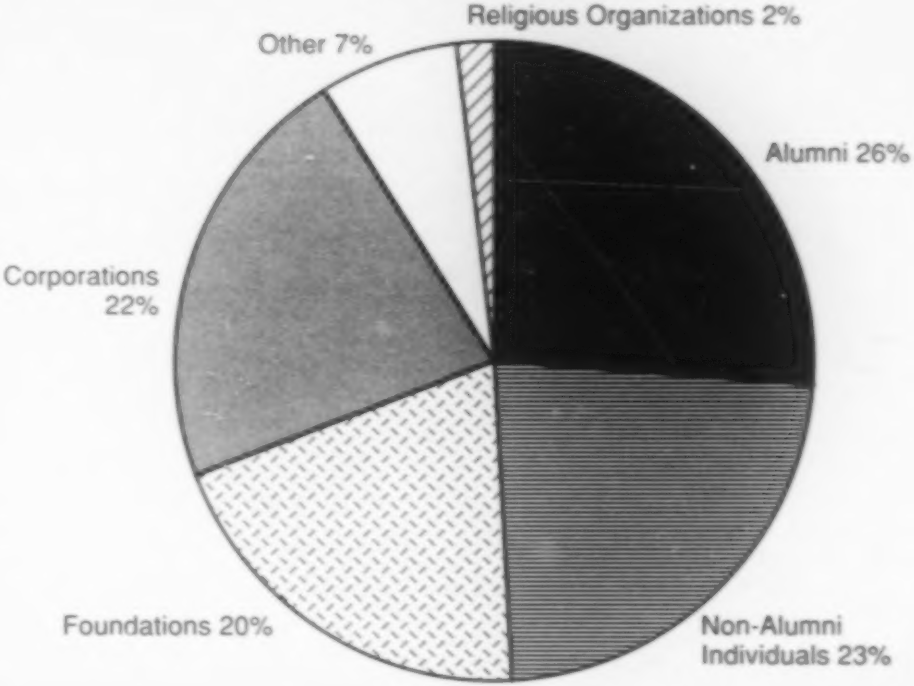
Voluntary Support of Higher Education Increases to $9.8 Billion

- In 1989-90, total voluntary support of higher education was estimated at $9.8 billion. This represents an $875 million dollar increase over 1988-89, according to the Council for Aid to Education.
- In 1989-90, alumni/ae donations increased more than 11 percent over 1988-89, to $2.54 billion.
- In 1989-90, corporations donated $2.17 billion, and foundations donated $1.92 billion.
- Religious organizations donated $240 million, a 1 percent increase compared to 1988-89.
- About 56 percent of all voluntary support was for current operations in 1989-90; gifts for capital purposes accounted for 44 percent of the total.

Source: Council for Aid to Education. *Voluntary Support of Education, 1989-90.* Available for $50 (prepaid) from CFAE, 680 Fifth Ave., New York, NY 10019.

Voluntary Support, by Source, 1989-90

Total = $9.8 Billion



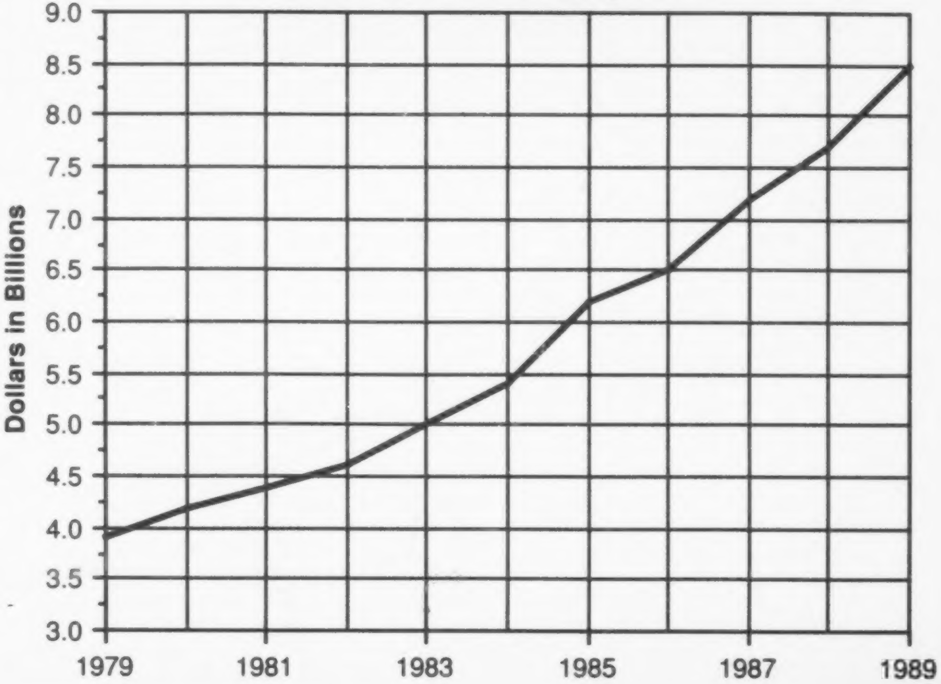
Federal Funds Are Increasing for Science and Engineering Research and Development

Over the last ten years, federal allocations to higher education institutions for research and development have increased in science and engineering areas.

- In fiscal year 1989, federal funding to colleges and universities for academic science and engineering research is estimated at $8.5 billion; this is a 10 percent increase over the previous year.
- Federal funds for fellowships, traineeships, and training grants for science and engineering students increased 10 percent between fiscal year 1988 and 1989, from $309 million to $341 million.
- Funds have increased for non-science and non-engineering students as well. Between fiscal year 1988 and 1989, federal allocations increased from $4.9 billion to $5.6 billion.

Source: National Science Foundation. *Federal Support to Universities and Colleges: Fiscal Year 1989*. Selected data from NSF 91-316, 1991. Copies are available from the Division of Science Resources Studies, National Science Foundation, 1800 G St. NW, Washington, DC 20550.

Federal Funds to Colleges and Universities For Academic Science and Engineering Research and Development



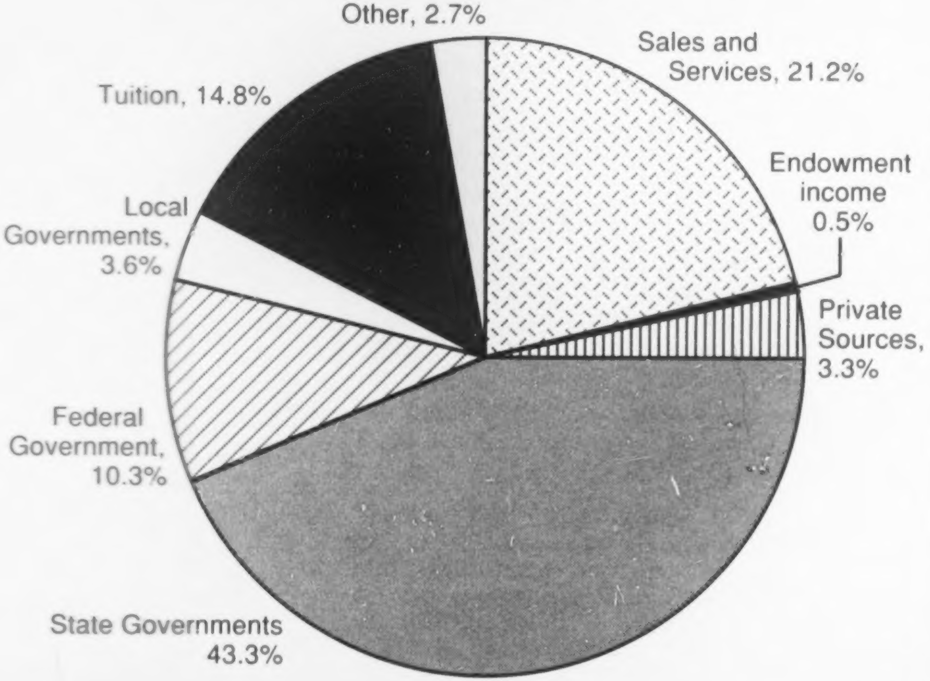
Public Institutions: Enrollment and Revenues

- In 1988, there were 11,563 public institutions of higher education.
- About 10.2 million students were enrolled in the nation's public institutions in 1988. During the ten year period 1978 to 1988, the number of students enrolled in public institutions increased 15 percent.
- In 1988, approximately 5.4 million students were enrolled full-time, while 4.8 million students were enrolled part-time at public institutions.
- Total current fund revenues at public institutions were $74.8 billion for fiscal 1988; tuition and fees represented 14.8 percent of revenues.
- Revenues from state governments stood at $32.4 billion; this accounted for 43.3 percent of revenues in fiscal 1988.

Sources: U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics, 1991*. U.S. Government Printing Office, Washington, DC.

Sources of Revenue for Public Institutions of Higher Education, FY 1988

Total = $74.8 Billion



Education Appropriations Declined During 1980s

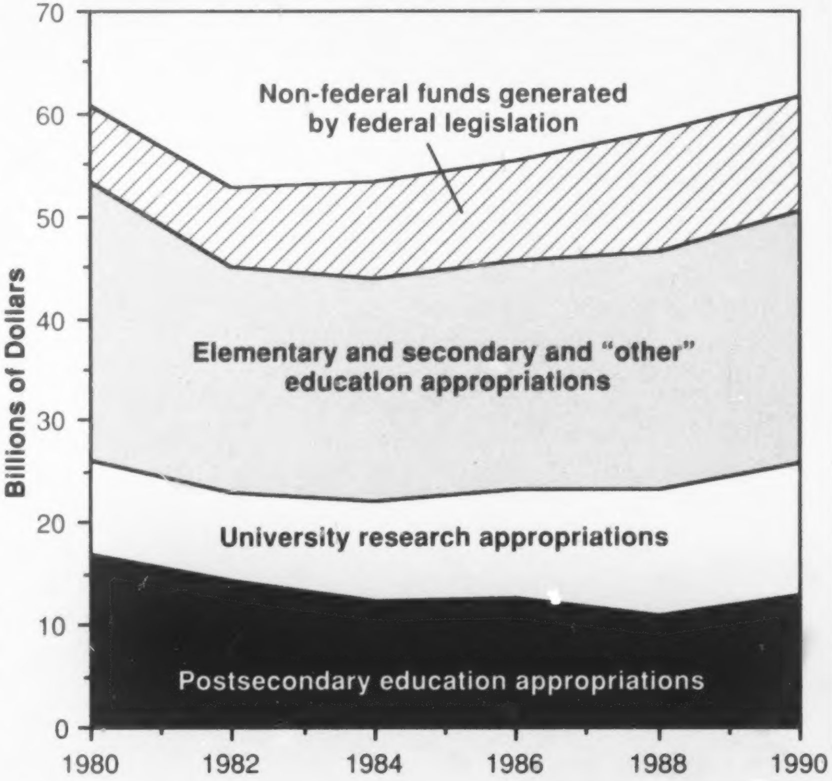
Federal appropriations for education dropped from $53.3 billion to $50.5 billion in constant dollars between 1980 and 1990, although spending was estimated to have grown from $34.3 billion to $50.5 billion in current dollars during the period.

- Appropriations for postsecondary education, exclusive of funds for university research, declined during the decade from $17 billion to $12.9 billion in constant dollars.
- Including funds for university research, which grew by $4 billion in constant dollars, appropriations for all postsecondary programs in 1990 were only slightly below those for 1980—$25.9 billion versus $26 billion.
- Nonfederal funds generated by federal legislation, e.g., funds from federally guaranteed loans or matching requirements, grew by 50 percent during the decade.
- If these funds are added to federal appropriations, total 1990 federal support for postsecondary education exceeded that of 1980 by 1.6 percent.

Source: U.S. Department of Education, National Center for Education Statistics. *Federal Support for Education: Fiscal Years 1980 to 1990.* The report is available from the Office of Educational Research and Improvement, Education Information Branch, Suite 310, U.S. Department of Education, 555 New Jersey Ave. NW, Washington, DC 20208-5641, (800) 424-1616

Federal Support for Education, 1980-1990

(in constant 1990 dollars)



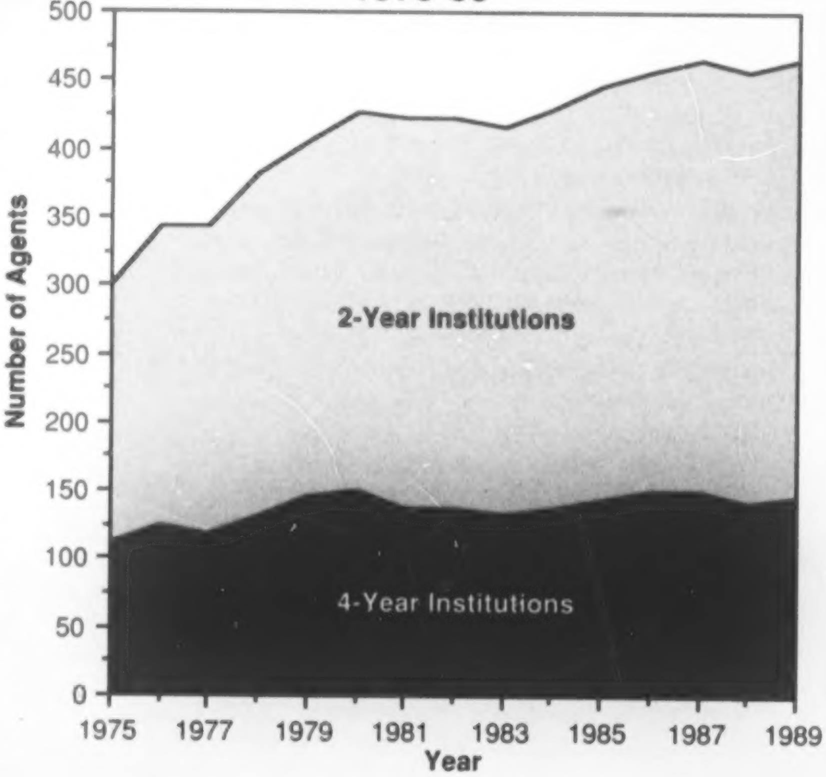
Collective Bargaining in Higher Education

Most bargaining agreements in academe were initiated during the 1970s, when the average constant dollar salaries of faculty members dropped from $13,284 to $10,844. The rate of growth in bargaining agents slowed in the 1980s, probably due in part to the fact that faculty salaries increased modestly during this period.

- From 1975 to 1980, the number of certified bargaining agents increased by 42 percent, from 301 to 427.
- Between 1980 and 1989, the number of bargaining agents increased by 9 percent, from 427 to 466.
- Most bargaining agents (85 percent) are at public institutions.
- Over two-thirds of the bargaining agents (69 percent) are at two-year colleges, and most of these schools (97 percent) are public institutions.
- Five states—California, New York, Illinois, Michigan, and New Jersey—account for 54 percent of the agents.

Source: Joel M. Douglas. *Directory of Faculty Contracts and Bargaining Agents in Institutions of Higher Education.* The National Center for the Study of Collective Bargaining in Higher Education and the Professions—Baruch College, CUNY, New York, 1990 as summarized in *Academics Bargaining Collectively: Some ABCs,* ACE's Research Briefs Series, vol. 2, no. 2, 1991.

Bargaining Agents, by Type of Institutions, 1975-89

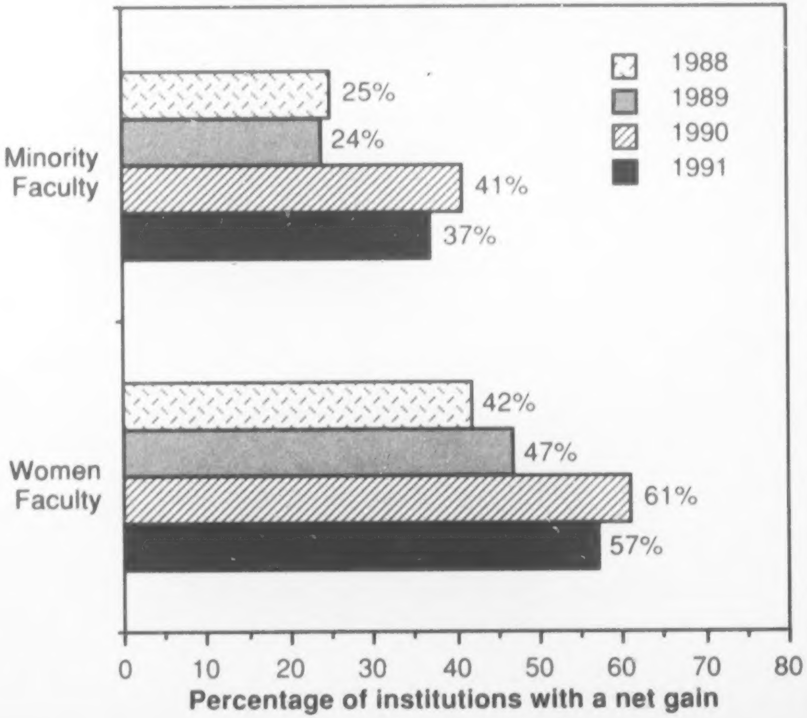


Study Shows Some Gains for Minority and Women Faculty

- Between academic years 1989-90 and 1990-91, four in ten institutions had net increases in the size of their minority faculties. Six in ten institutions had net increases in women faculty members.
- Doctoral universities were the most likely to make net gains in the hiring of minority faculty: 69 percent reported a net gain.
- In contrast, relatively few independent institutions made progress in this area: 27 percent reported a net gain in the number of minority faculty members, while 7 percent reported a net loss.
- Increases in the representation of minorities among tenured faculty were less evident. Eight in ten institutions reported no net change.
- Some progress was reported in the representation of women among tenured faculty. About one-half (47 percent) of all institutions and 58 percent of doctoral universities reported a net gain. However, another 10 percent of doctoral institutions said they had a net loss in the number of women with tenure.

Source: Elaine El-Khawas. *Campus Trends, 1991.* The report is available for $13 ($10 for ACE members), prepaid, from the American Council on Education, Division of Policy Analysis and Research, One Dupont Circle, Washington, DC 20036.

Net Gains in Hiring Minority and Women Faculty

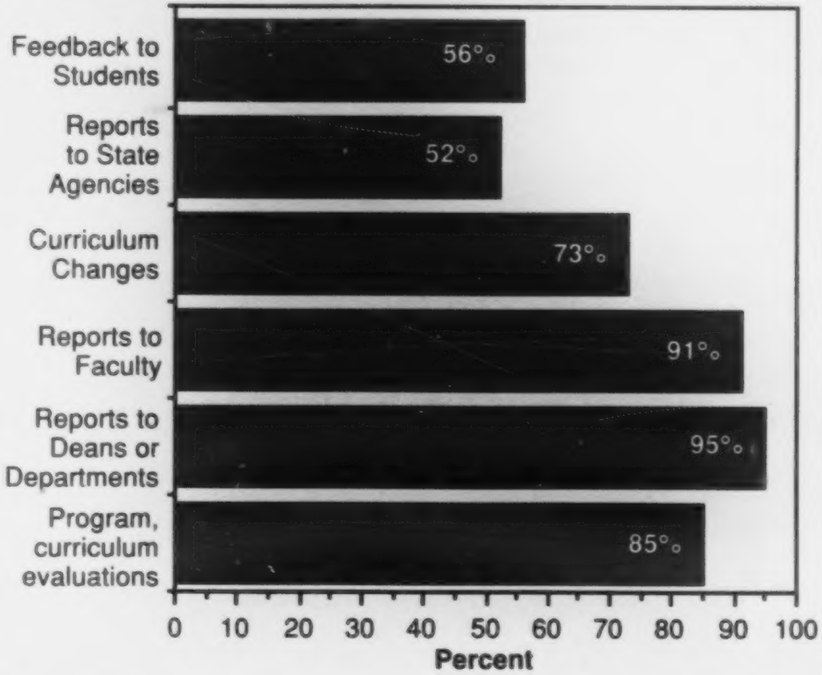


Majority of Colleges Conduct Student Assessments

Most colleges—eight out of ten—indicate that they currently have some types of assessment activities under way.

- A significant portion of the recent assessment activities on campuses have been prompted by external mandates. In 1989, administrators at two-fifths of all institutions—and at one-half of public institutions—reported that assessment activities were "mainly a response to external mandates."
- In 1990, however, almost three-quarters (73 percent) of campus officials fear that external agencies would misuse assessment results.
- Today, about two-thirds of institutions indicate that they are assessing students' basic college level skills. However, two-year colleges are more than twice as likely as doctoral institutions to have assessments for basic skills.
- According to campus administrators, assessment data are used mainly for internal purposes. For example, in 1990, 56 percent of institutions use the results to provide feedback to students. Ninety-one percent have reported results to faculty and administrators.

How Assessment Results Are Used, 1990



Source: Holly Hexter and Joan Lippincott. *Campuses and Student Assessment.* ACE's Research Brief Series, vol. 1, no. 8, 1990. The series is published eight times a year and is available for $55 for one year (ACE members receive a 10 percent discount). Single copies are $8 each. To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

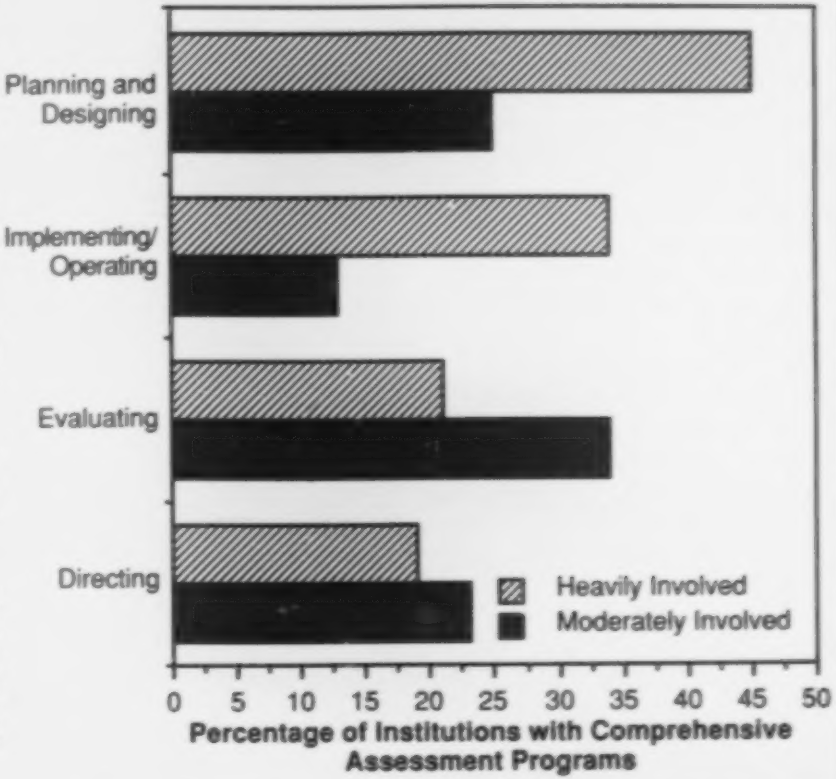
Campuses Involve Faculty in Assessment

One in three postsecondary institutions operated *comprehensive* student assessment programs in 1990, a recent survey shows. In this study, comprehensive student assessment programs were defined as those involving *two or more* of the following components: basic college readiness skills, general education/liberal studies, major field of study, career preparation/alumni follow up, and/or personal growth and development.

- Of those institutions with such assessment programs, nearly three-quarters had faculty members who were heavily or moderately involved in the design and planning of the programs.
- About half of institutions reported that faculty members had moderate to heavy involvement both in their assessment program's implementation and operation, and in its evaluation.
- About one-fifth of institutions said faculty members were heavily involved in the actual direction of assessment programs, while one-fourth said they were moderately involved in such activity.

Source: Reid Johnson, Joseph Prus, Charles Andersen, and Elaine El-Khawas. *Assessing Assessment: An In-depth Status Report on the Higher Education Assessment Movement in 1990.* Copies of the report are available for $13 ($10 for American Council on Education members), prepaid, from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036.

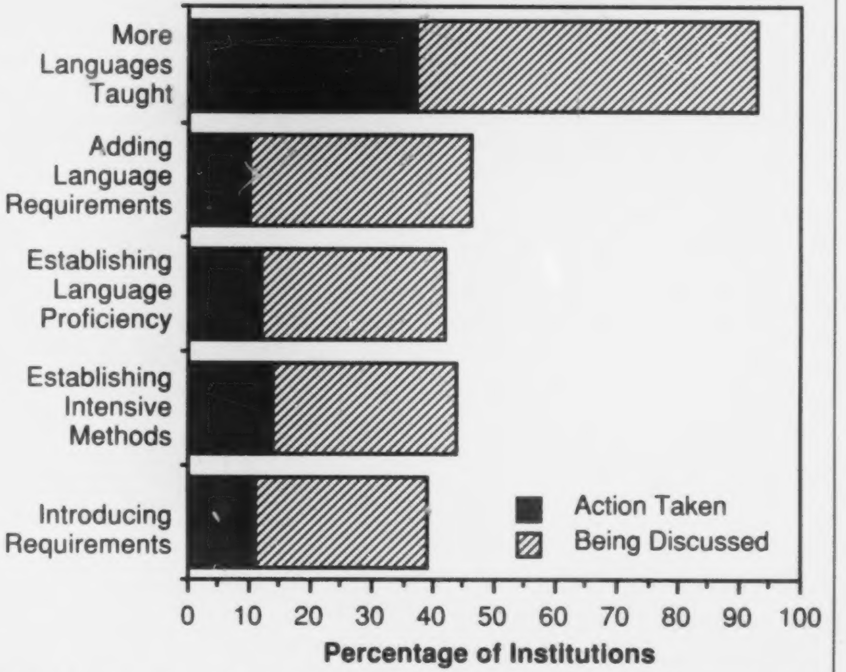
Faculty Involvement in Comprehensive Assessment Programs, 1990



Colleges Considering New Approaches to Foreign Language

- Among four-year colleges and universities, 36 percent currently require foreign language study of all students; another 26 percent have language requirements that apply to some of their students.
- Among universities, only 19 percent have a foreign language requirement that applies to all students.
- At least six in ten four-year institutions are either considering whether to increase the number of foreign languages taught or have recently implemented such increases.
- About four in ten four-year institutions are also considering, or have recently changed, other aspects of how they offer foreign language study. This includes: introducing new language requirements; adding to current language requirements; giving greater emphasis to foreign language proficiency; and offering intensive study of foreign languages.
- Among two-year institutions, the primary activity recently with regard to foreign languages is to increase the number of languages taught; more than four in ten two-year colleges have recently increased the number of languages they offer, or are discussing such a change.

Changing Approaches To Foreign Language Study



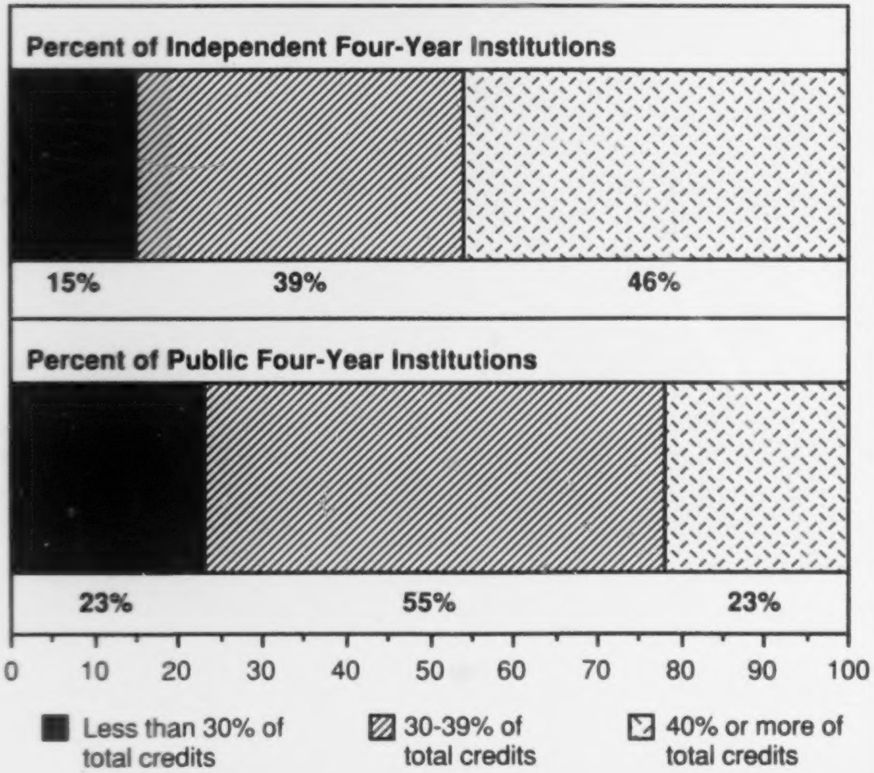
Source: Elaine El-Khawas. *Campus Trends, 1991*. The report is available for $13 ($10 for ACE members), prepaid, from the American Council on Education, Division of Policy Analysis and Research, One Dupont Circle, Washington, DC 20036.

Most Colleges Require General Education Core

- *Campus Trends, 1990* reports that most colleges and universities in the U.S. (96 percent) have general education requirements.
- More than eight out of ten four-year institutions have general education requirements for all students.
- Among two-year institutions, almost all (96 percent) have general education requirements. Seventy percent have requirements for all students, and 26 percent have general education requirements for some students, primarily because vocational certificate programs have different general requirements.
- New components of general education are gaining ground. Interest in freshman seminars is strong, with four in ten institutions now offering such courses.
- Senior "capstone" courses currently are offered by about one-third of four-year institutions.
- Close to half of all colleges and universities (45 percent) require students to take courses focused on Western civilization.

Source: Elaine El-Khawas. *Campus Trends, 1990.* The report is available for $13 ($10 for ACE members), prepaid, from the American Council on Education, Division of Policy Analysis and Research, One Dupont Circle, Washington, DC 20036-1193.

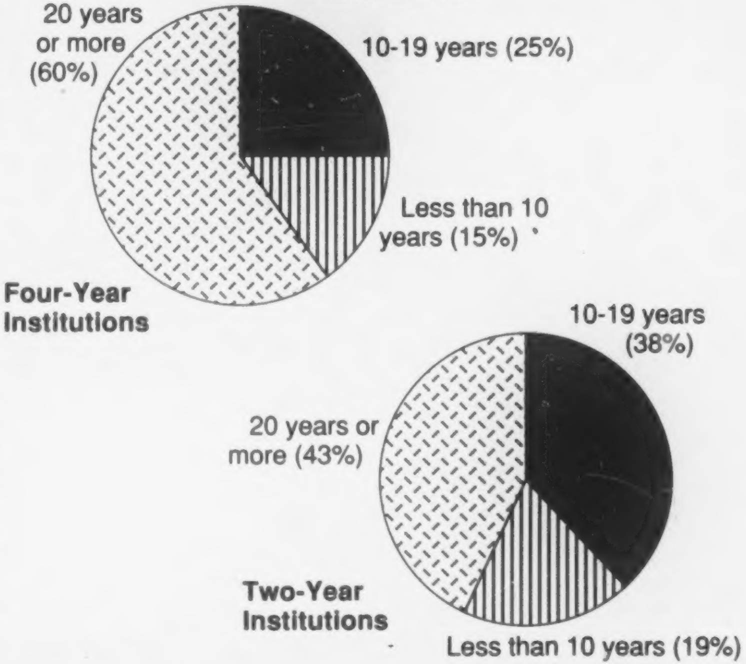
General Education Credit Requirements As a Percent of Total



A Profile of Senior Faculty

- Senior faculty (those over age 50) have become an important presence in higher education; in 1989, they accounted for at least 40 percent of all full-time faculty, compared to 28 percent in 1972.
- Many senior faculty have been at their institutions for two decades or more. Sixty percent of senior faculty at four-year institutions and 43 percent of senior faculty at two-year institutions have served at the same institution for 20 years or more.
- Classroom teaching and student advising are the two core activities of senior faculty.
  - —Among senior faculty at four-year institutions, 61 percent regularly taught nine hours or more each week, and 23 percent taught 13 hours or more per week in 1989.
  - —At two-year institutions, 93 percent of senior faculty regularly taught nine hours or more each week, and 78 percent taught classes for 13 hours or more each week.
  - —More than half of senior faculty at both two-year and four-year institutions spent between one and four hours each week advising students in 1989.
- A majority (59 percent) of senior faculty at four-year institutions had one or more publications in the past two years, compared with 49 percent in 1972-73.

Senior Faculty: Years Employed at Institution



Source: Elaine El-Khawas. *Senior Faculty in Academe: Active, Committed to the Teaching Role.* American Council on Education's Research Brief Series, vol. 2, no. 5, 1991. The series is published eight times a year and is available for $55 for one year (ACE members receive a 10 percent discount). To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

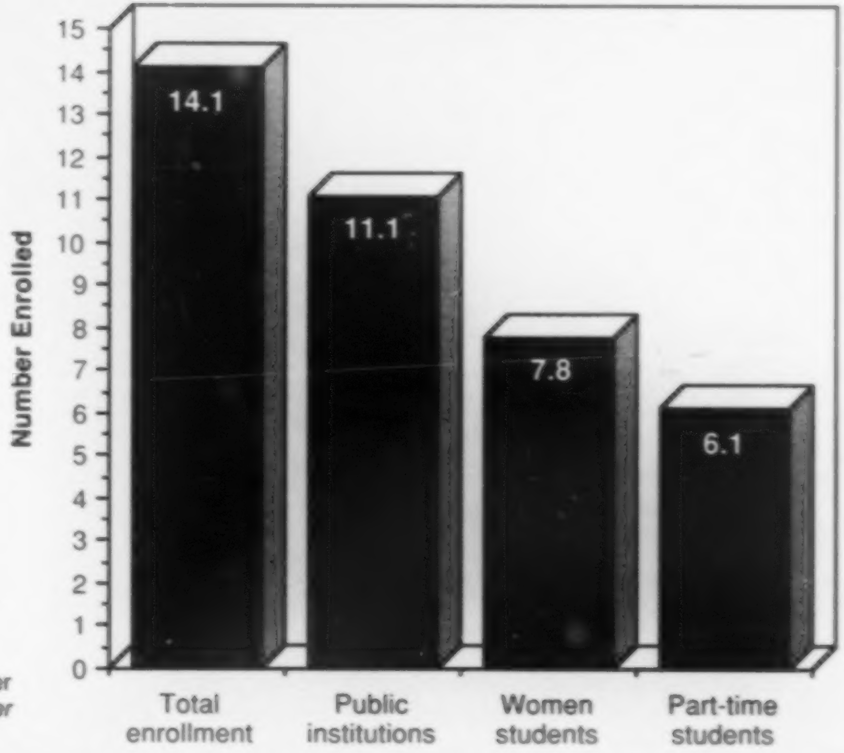
Students

College Enrollments Increase

Enrollments in the nation's colleges and universities increased by 3 percent from 1990 to 1991, despite the continuing decline in the number of 18-to-24-year olds. Preliminary data show that in fall 1991:

- 14.2 million students attended college;
- 11.1 million students—about 79 percent—were enrolled at public institutions;
- 6.1 million students—about 43 percent—were attending part-time; and
- Women accounted for 55 percent of all college students.

Higher Education Enrollment, Fall 1991
(in millions)



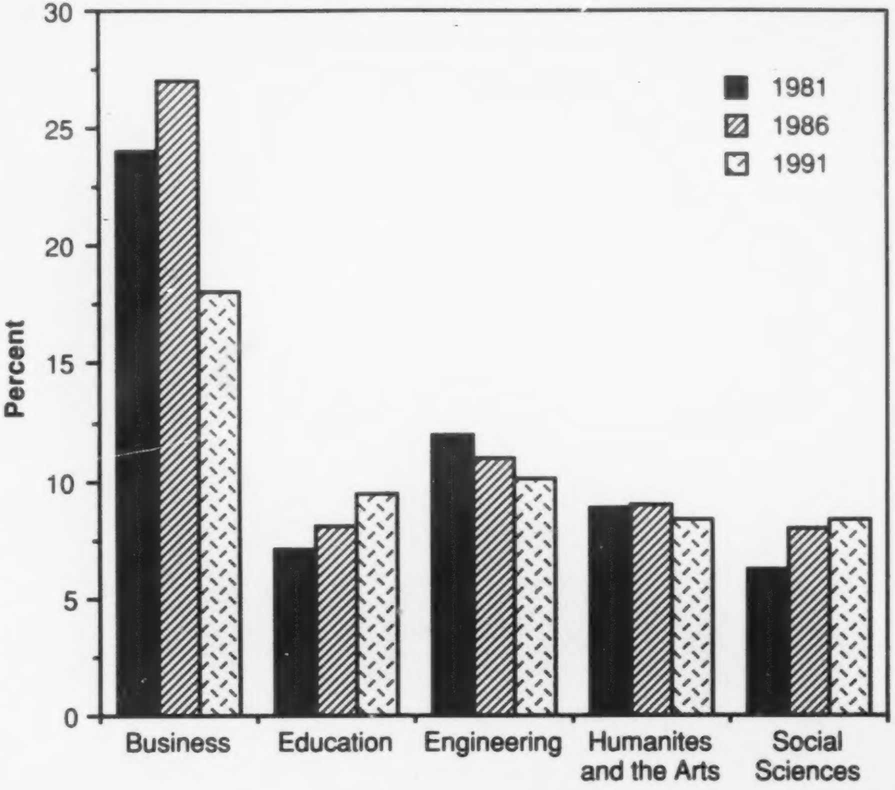
Source: U.S. Department of Education, National Center for Education Statistics. *Early Estimates; National Higher Education Statistics: Fall 1991*, Washington, DC.

Freshmen Interest in Business Slows

- Although more freshmen indicate that they plan to major in business than in any other field, a lower percentage of 1991 freshmen plan to major in this field than their 1990 counterparts.
- In 1991, 18 percent of freshmen planned to major in business, compared to 21 percent in 1990.
- Ten percent of 1991 freshmen plan to major in education, as did 1990 freshmen.
- Freshman interest in engineering has held stable; in both 1990 and 1991, 10 percent of freshmen said they were planning to major in this subject.
- In 1991, 8 percent of freshmen planned to major in the social sciences, compared to less than 6 percent of freshmen in 1986.
- Eighteen percent of 1991 freshmen showed an interest in professional fields such as pre-medicine, pharmacy, and nursing.

Source: Alexander W. Astin. *The American Freshman: National Norms for Fall 1981, 1986, 1990, and 1991*. The 1991 report is available for $20.00, prepaid, from the Higher Education Research Institute, Graduate School of Education, University of California, Los Angeles, 320 Moore Hall, Los Angeles, CA 90024-1521.

Planned Freshman Majors, 1981, 1986, and 1991



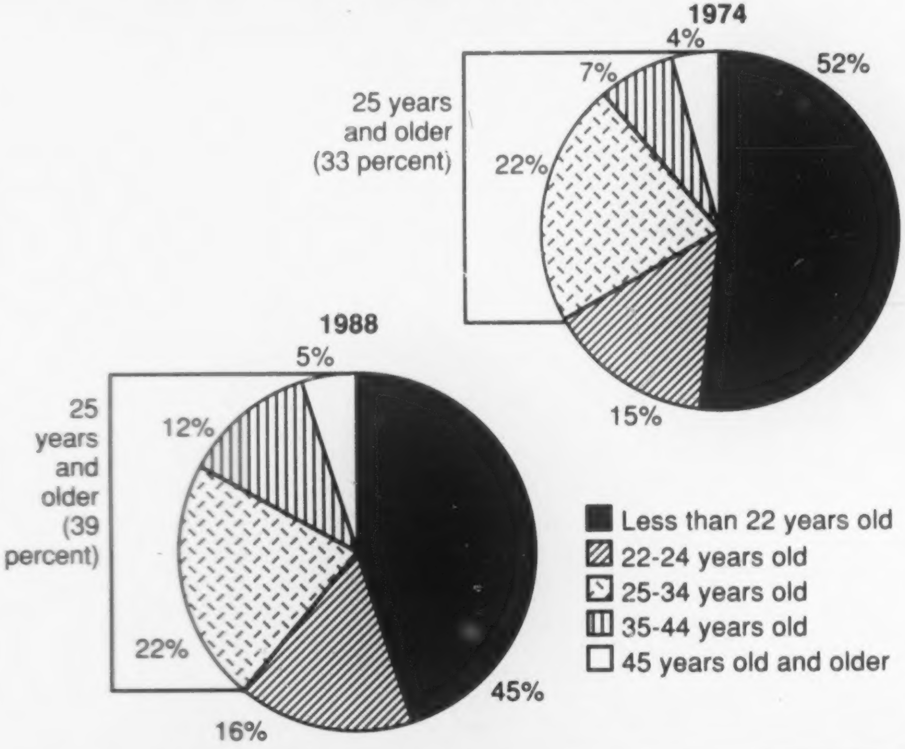
Traditional-Age Students Still a Majority In Higher Education

Despite the increased enrollment of older students, in 1988 traditional-age students (18-to-24-year olds) still comprised a majority (61 percent) of college enrollments, compared to 67 percent in 1974.

- In contrast, older students (25 years and older) accounted for 39 percent in 1988, up from 33 percent in 1974.
- Students under 25 years of age comprised the bulk of full-time students: 81 percent in 1988.
- However, younger students account for a small proportion of part-time students. In 1988, 28 percent of part-time students were 25 years or younger.
- For the future, the population base for 18-to-24-year-olds is projected to drop and, because of the projected constant enrollment rate, enrollment of this age-group will decrease to 7 million from the estimated 7.8 million in 1988.

Source: Charles J. Andersen. *Enrollment by Age: Distinguishing the Numbers from the Rates.* ACE's Research Brief Series, vol. 1, no. 7, 1990. Copies are available for $8 (prepaid) from the American Council on Education, Division of Policy Analysis and Research, One Dupont Circle, Washington, DC 20036.

Percentage Distribution of Students, by Age, 1974 and 1988



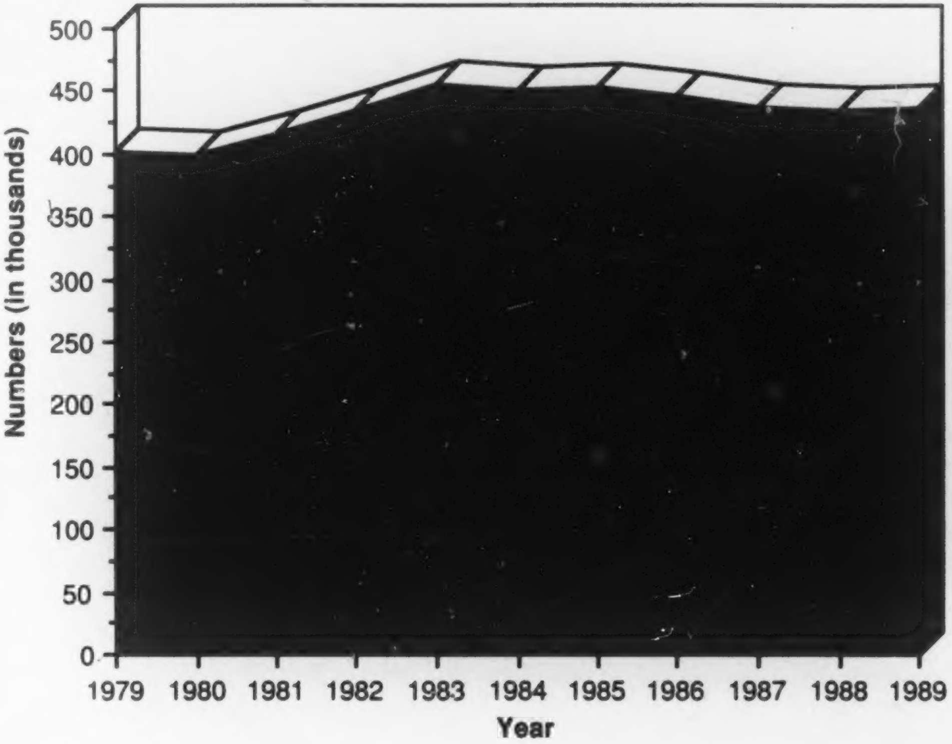
Associate Degrees Increased Eight Percent During the 1980s

- Associate degrees awarded from 1979 to 1989 increased at a faster rate than other higher education degrees. For example, associate degrees increased by 8 percent during this period, compared to a 6 percent increase in bachelor's degrees.

  —However, during this period the number of associate degrees awarded fluctuated.
- Between 1988 and 1989, the number of associate degrees increased slightly, from 435,537 to 436,462.
- In 1988, 5.5 million students attended community, junior, and technical colleges. This is a 28 percent increase over 1978, when enrollment stood at 4.3 million students.
- Between 1988 and 1989, enrollment at community, junior, and technical colleges increased by 4 percent.

Source: American Association of Community and Junior Colleges, Office of Research, 1990. For further information, call the American Association of Community and Junior Colleges at (202)728-0200.

Associate Degrees Awarded, 1979 to 1989

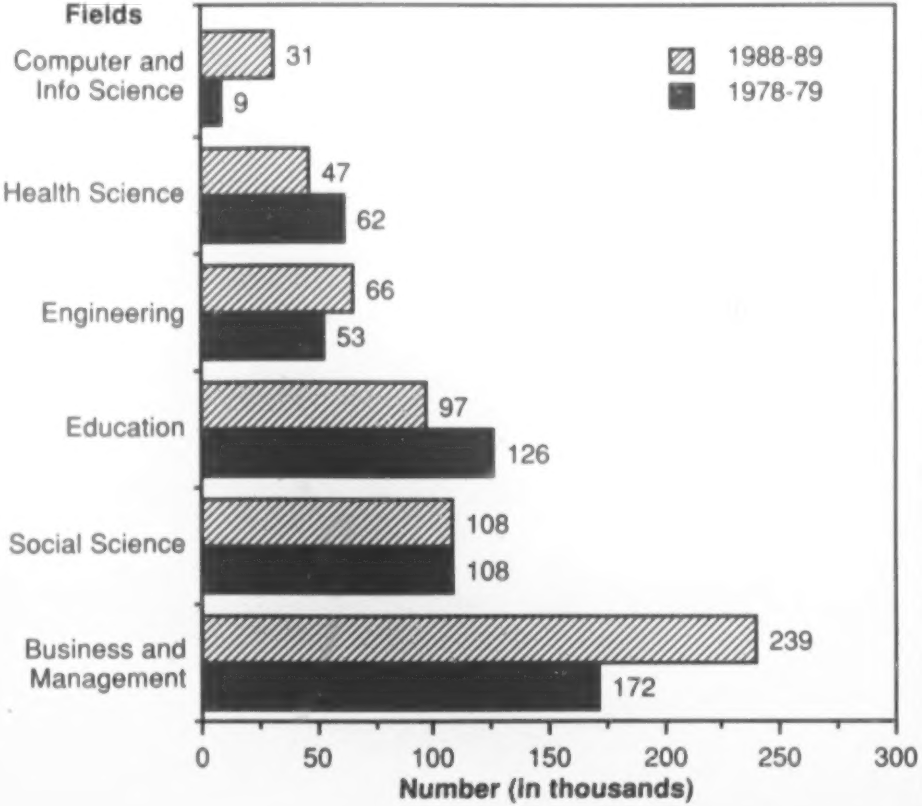


Bachelor's Degrees Up Slightly

- In 1988-89, 1,017,667 bachelor's degrees were awarded, a 2 percent increase over the 1987-88 figure.
- Although the number of degrees awarded in business and management increased 39 percent between 1978-79 and 1988-89, between 1987-88 and 1988-89, the growth in bachelor's degrees in this field slowed somewhat, with only a 2 percent increase.
- There was a decline in the number of degrees awarded in computer and information sciences, from 34,548 degrees earned in 1987-88 to 30,637 in 1988-89.
- Between academic years 1987 and 1988 the number of bachelor's degrees earned in the social sciences increased 7 percent.
- Bachelor's degrees awarded in education increased 7 percent between 1987-88 and 1988-89, from 91,013 to 96,988.

Source: U.S. Department of Education, National Center for Education Statistics. Integrated Postsecondary Education Data Systems (IPEDS), "Completions" survey, unpublished data tabulations, 1991. For more information contact the National Center for Education Statistics at 1-800-424-1616.

Growth of Career Degrees Slows

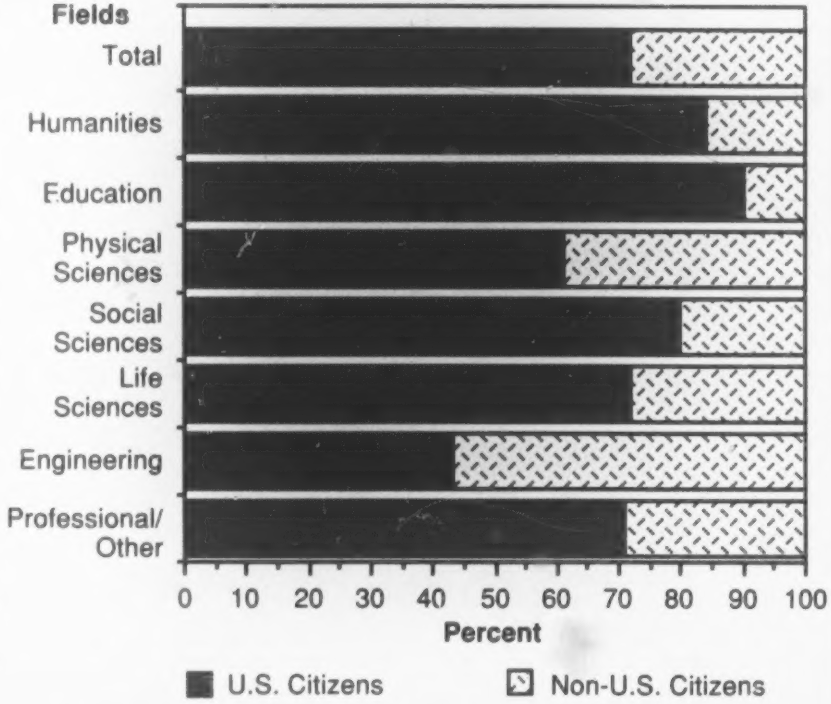


Americans Receiving Fewer Ph.D.s

- Between 1980 and 1990, the number of Ph.D.s awarded annually to U.S. citizens by American institutions decreased 4 percent, from 25,222 to 24,190. During this period, the number of Ph.D.s awarded to non-U.S. citizens almost doubled, from 4,934 to 9,398.
- Among those earning doctorates, U.S. citizens are receiving a decreasing proportion of all degrees awarded. In 1990, Americans received 73 percent of all doctorates, while non-U.S. citizens earned 27 percent. Five years earlier, Americans earned 79 percent of all Ph.D.s.
- In 1990, more than one of five doctorates awarded to non-U.S. citizens (22 percent) were to those with temporary visas. In 1980, temporary visa holders received only 12 percent of all Ph.D.s awarded.
- The fields in which non-U.S. citizens received the greatest proportion of total doctorates in 1990 were engineering (53 percent) and physical sciences (37 percent).
- In 1990, U.S. colleges and universities awarded 36,027 Ph.D.s, up slightly from 1989, when 34,319 doctorates were awarded.

Note: The 1990 total includes 2,439 doctorates awarded to those of unknown citizenship.

Ph.D.s in Various Fields by Citizenship, 1990

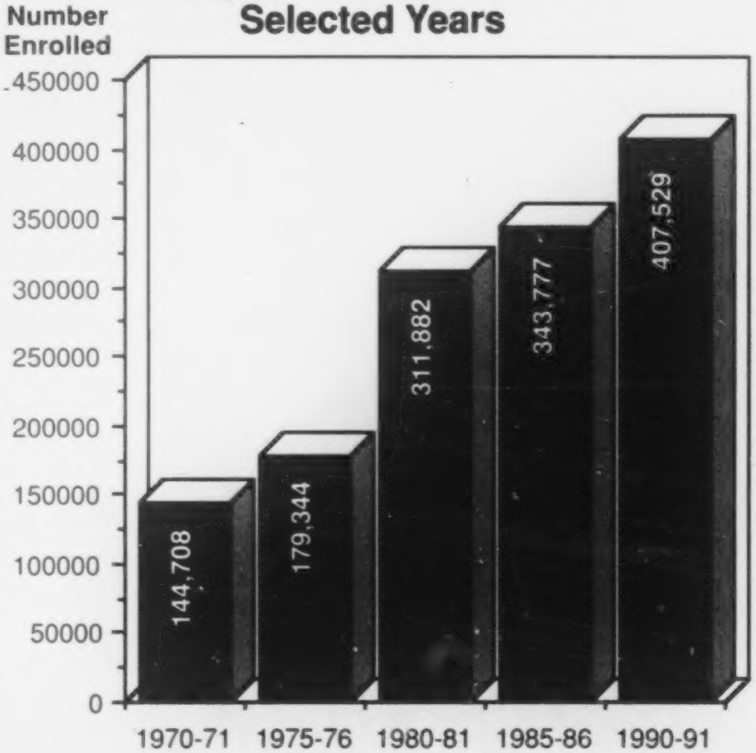


Source: National Research Council. *1990 Summary Report: Doctorate Recipients from United States Universities.* National Academy Press, 1991. For more information contact the National Research Council, 2101 Constitution Avenue NW, Washington, DC 20418.

Foreign Enrollment Continues to Increase

- In academic year 1990-91, 407,529 foreign students were enrolled in U.S. colleges and universities, up from 386,851 the previous year.
- In the last five years, foreign enrollment has increased 18 percent.
- In 1990-91, 45 percent of foreign students were enrolled at the graduate level, 47 percent at the undergraduate level, and 9 percent in other studies (e.g., intensive English courses).
  - —Among those studying at the undergraduate level, 35 percent were working toward their bachelor's and 12 percent toward their associate degrees.
- More than six out of ten foreign students were enrolled at public institutions, while about one in three studied at independent colleges and universities.
- Most foreign students (86 percent) were attending four-year institutions; 14 percent were attending two-year colleges.
- More than half (56 percent) of foreign students were from Asia, particularly China, Taiwan, Japan, India, and Korea. Twelve percent came from Latin America, and an equal share came from Europe.
  - —Between 1989-90 and 1990-91, the number of European students studying in the U.S. increased 8 percent.

Foreign Student Enrollment Selected Years



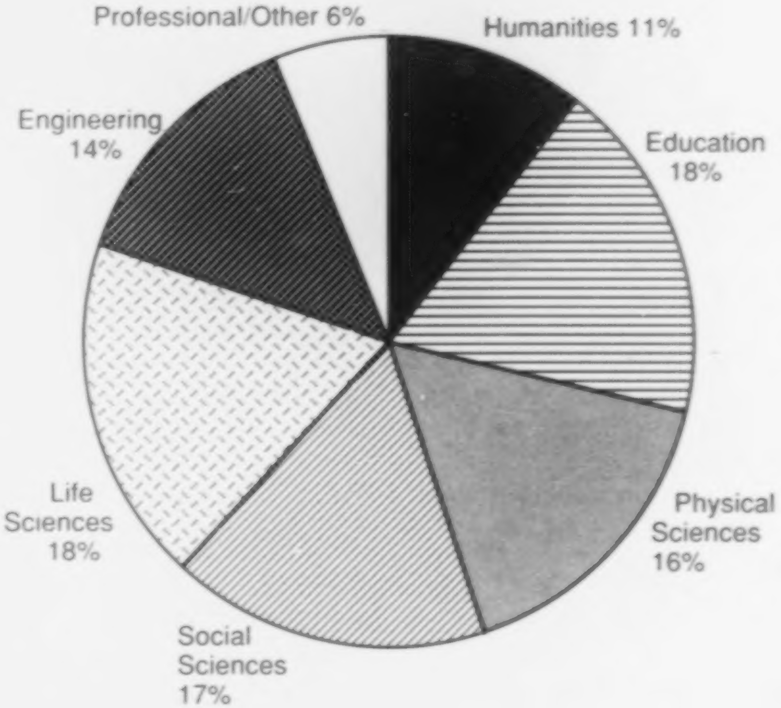
Source: Institute of International Education. *Open Doors 1990-91: Report on International Education Exchange*. The report is available from IEE Books, Institute of International Education, 809 United Nations Plaza, New York, NY 10017. Copies are $36.95, prepaid only.

Nearly Half of 1990 Doctorates Awarded in Sciences

- In 1990, a total of 36,027 doctorates were awarded by U.S. colleges and universities, 48 percent of which were in the sciences.
- Of the 17,364 science doctorates awarded in 1990, 5,859 were in the physical sciences, 4,892 were in engineering, and 6,613 were in the life sciences.
- Over three-quarters (77 percent) of science doctorates were earned by men.
- Women are still most underrepresented in the physical sciences and engineering. In 1990, women earned only 8.5 percent of engineering doctorates.
- Overall, the number of science doctorates earned increased 29 percent, from 13,447 to 17,364, between 1985 and 1990.
- Three out of five (60 percent) of the degrees awarded in the physical sciences were in the fields of chemistry, physics, and astronomy.
- More than half (53 percent) of engineering doctorates in 1990 were earned by non-U.S. citizens, down slightly from 54 percent two years earlier.

Source: National Research Council. *Summary Report 1990: Doctorate Recipients from United States Universities.* National Academy Press, 1991. For more information, contact the National Research Council, 2101 Constitution Ave. NW, Washington, DC 20418.

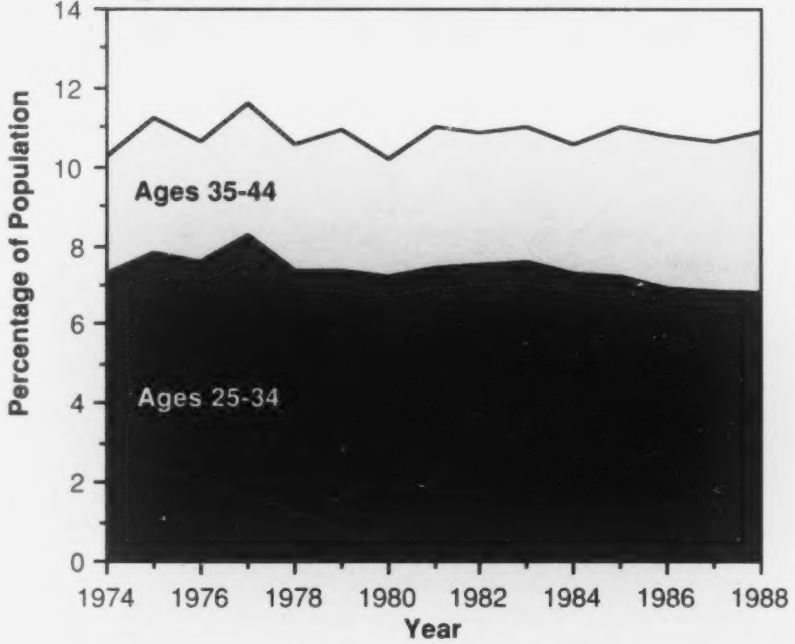
Ph.D.s by Field, 1990



Enrollment Rate of Older Students Is Up

- The number of students age 25 and older enrolled in colleges and universities rose by nearly 2 million between 1974 and 1988—an increase of 59 percent.
  - —Enrollment of 25-34-year olds totaled nearly 3 million in 1988—an increase of one-third over the 1974 figure of 2.2 million.
  - —Enrollment of 35-44-year olds totaled 1.6 million in 1988— more than double the 700,000 enrolled in 1974.
- However, the enrollment rate of these age groups—that is, the percentage of the population enrolled in higher education—has varied only slightly over the years (see chart).
  - —The enrollment rate of 25-34-year olds dropped from 7.3 percent in 1974 to 6.7 percent in 1988.
  - —The enrollment rate of 35-44-year olds fluctuated between 3 and 4 percent for a dozen years and then increased to 4.4 percent in 1988.
- The increase in persons over the age of 24 in the student population appears to be due more to growth in the population base than to changes in participation rates in that population.

Enrollment Rate of the Population Ages 25-34 and 35-44, 1974-1988



Source: U.S. Bureau of the Census, Current Population Reports. *School Enrollment,* Series P-20 issued annually 1974-88 as summarized in *Enrollment by Age: Distinguishing the Numbers from the Rates.* ACE's Research Brief Series, vol. 1, no. 7, 1990. The series is published eight times a year and is available for $55 for one year (10 percent discount for ACE members). To order, contact the American Council on Education, Division of Policy Analysis and Research, One Dupont Circle, Washington, DC 20036-1193.

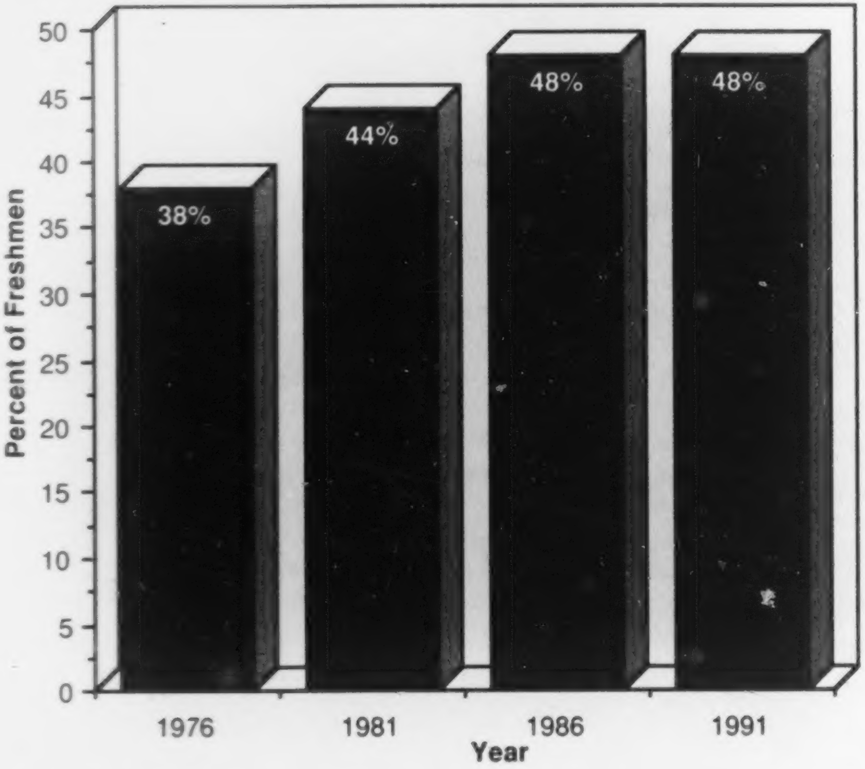
Entering Students Send More Applications

Higher percentages of first-time, full-time freshmen are applying to more than one college or university today compared to 15 years ago.

- In 1991, almost half of entering freshmen applied to more than one college or university (48 percent). In 1976, 38 percent of freshmen applied to more than one institution.
- Male freshmen were somewhat more likely to apply to more than one college than their female counterparts. In 1991, 50 percent of males applied to more than one college compared to 46 percent of females.
- In 1991, 66 percent of freshmen at independent universities sent applications to three or more institutions, while 55 percent did so at four-year independent colleges.
- Thirty-three percent of freshmen at state colleges applied to three or more institutions in 1991.
- In 1991, 74 percent of freshmen were attending their first-choice college, compared to 71 percent in 1986 and 75 percent in 1981.

Source: Alexander W. Astin. *The American Freshman: National Norms for Fall 1991.* Copies are available for $20.00, prepaid, from the Higher Education Research Institute, Graduate School of Education, University of California, Los Angeles, 320 Moore Hall, Los Angeles, CA 90024-1521.

Full-Time Freshmen Applying to More Than One College/University



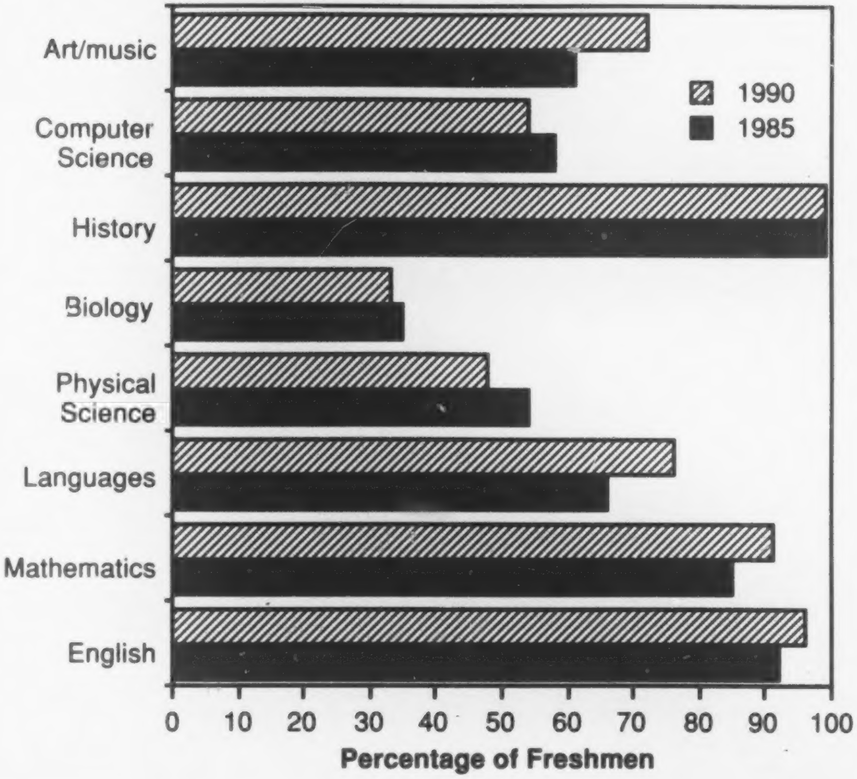
Most Freshmen Report Adequate Preparation for College

Most first-time, full-time freshmen in 1990 completed recommended years of high school study in basic academic areas, except for biological science and physical science. The percentage of prepared students varied from one subject to another.

- At least 95 percent of freshmen met or exceeded the recommended years of study in English (4 years) and history/American government (1 year). Ninety-one percent completed the recommended years of study in mathematics (3 years).
- Seventy-six percent of freshmen completed the recommended levels of study in foreign languages (2 years).
- More than half of freshmen said they completed recommended levels of study in art or music (1 year), and computer science (1/2 year).
- One-third of freshmen (33 percent) said they completed the recommended number of years in biological science (2 years).

Source: Alexander W. Astin. *The American Freshman: National Norms for Fall 1991*. Copies are available for $20.00, prepaid, from the Higher Education Research Institute, Graduate School of Education, University of California, Los Angeles, 320 Moore Hall, Los Angeles, CA 90024-1521.

Academic Preparation of College Freshmen: 1985 and 1990

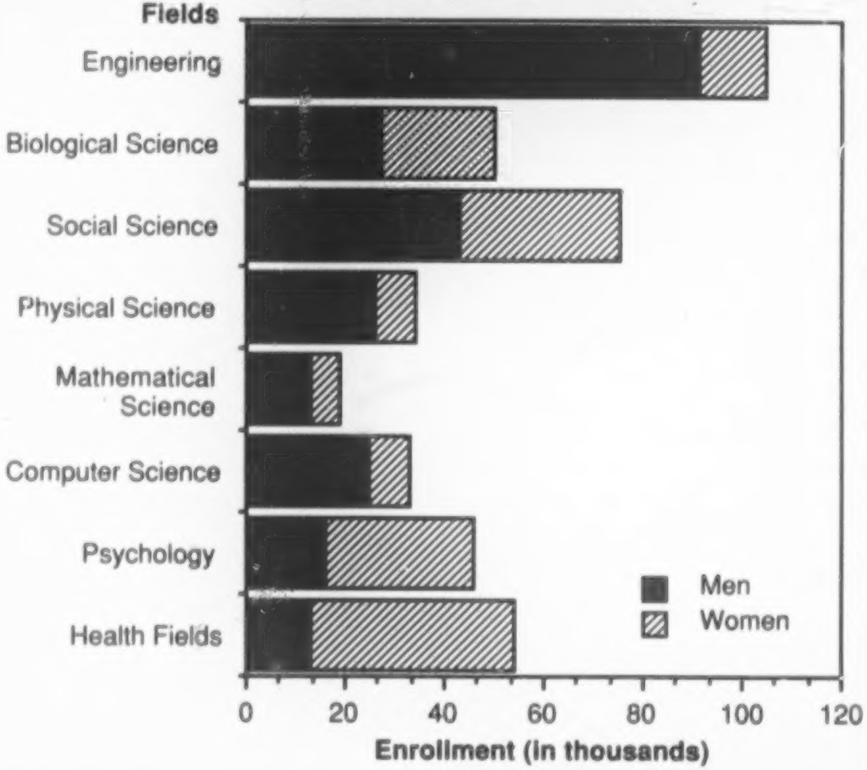


Graduate Enrollment in Science and Engineering Rises

- In 1989, 440,983 students were enrolled in the nation's graduate science and engineering programs. This represents an 11 percent increase over 1984.
- These students included 339,168 U.S. citizens and 101,815 foreign students. Between 1988 and 1989, enrollment of U.S. citizens in graduate engineering and science programs increased slightly from 332,040 to 339,168; enrollment of foreign students increased 4 percent.
- Engineering enrolls about one-quarter of all graduate science and engineering students.
- Women account for nearly 38 percent of those enrolled. In 1989, 168,810 women were enrolled in graduate science and engineering programs.
- Since 1984, the number of men enrolled in graduate science and engineering programs has increased by 7 percent. The number of women enrolled has increased by 18 percent.

Source: J.G. Huckenpahler. *Selected Data on Graduate Students and Postdoctorates in Science and Engineering: Fall 1989.* National Science Foundation, 1990. For further information, contact the Division of Science Resources Studies, Rm. L-611, National Science Foundation, 1800 G Street NW, Washington, DC 20550.

Graduate Student Enrollment in Science and Engineering, 1989

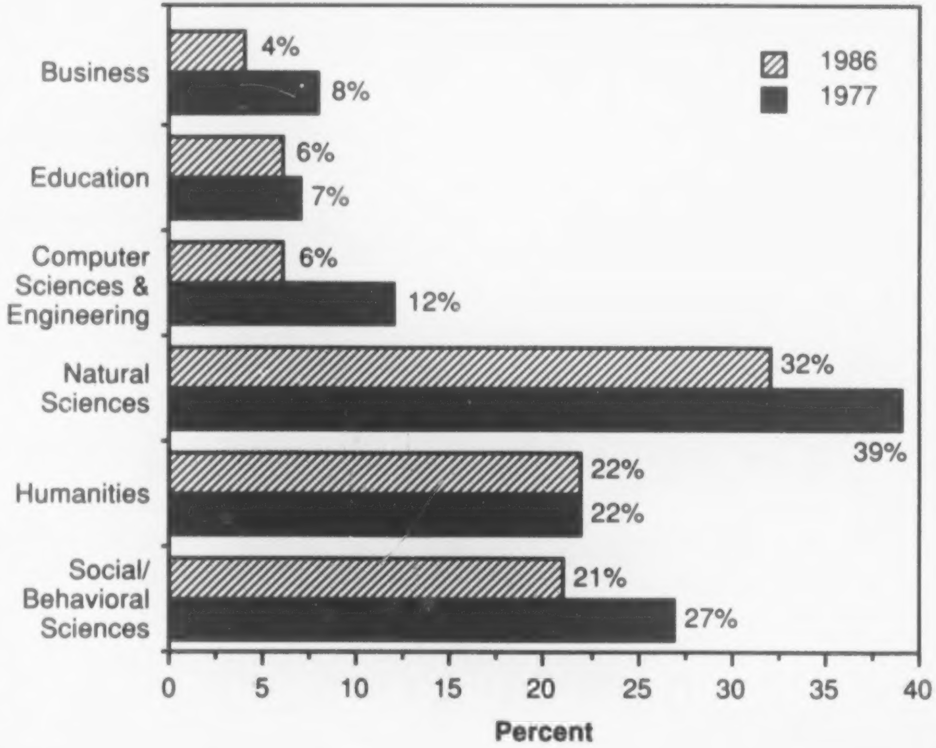


Fewer College Graduates Enroll in Graduate School

- Among 1986 baccalaureate degree recipients, 11 percent were enrolled in graduate school one year later. This is down from 1977 and 1980 when 17 percent and 16 percent, respectively, of college graduates were enrolled in graduate programs.
- Graduates who majored in the natural sciences, humanities and social sciences were more likely to be enrolled in graduate school in 1987, while those with degrees in business and management, education and the health sciences were the least likely to be enrolled.
- Almost three-quarters (74 percent) of the nation's baccalaureate degree recipients were employed full-time one year after graduation compared to 71 percent in 1980.
- Of those who were employed, 38 percent were working in a job related to their major. The average salary of full-time employed 1986 graduates was $22,089.

Source: U.S. Department of Education, National Center for Education Statistics. *The Condition of Education, 1991, Volume 2, Postsecondary Education.* Washington, DC, 1991.

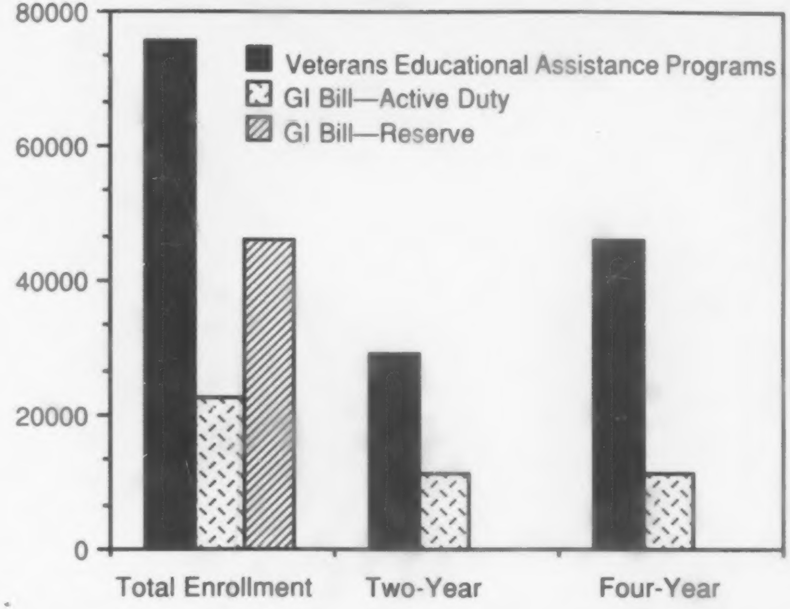
Baccalaureate Recipients Enrolled in School One Year After Graduation, by Field



Postsecondary Participation by Military Personnel and Veterans

- In fiscal 1989, military servicemembers enrolled in 513,397 undergraduate courses and 55,640 graduate courses through the use of military-sponsored tuition assistance.
- Servicemembers using veterans' benefits for in-service education accounted for 39,000 undergraduate and graduate enrollments.
- An additional 3,569 servicemembers were engaged in independent study under the Defense Activity for Nontraditional Education Support (DANTES) program.
- Each year, military personnel also earn roughly 400,000 semester hours that may be transferrable to a college program, and 100,000 credit examinations also are administered.
- In fiscal 1989, servicemembers earned a total of 27,158 postsecondary degrees, including 15,454 associate degrees, 5,799 baccalaureate degrees and 5,874 graduate degrees.
- The reduction of force in military personnel that will take place in the early 1990s is expected to boost demand for further education and training among those who have been forced out.

Veterans Using Postsecondary Education Benefits, 1989

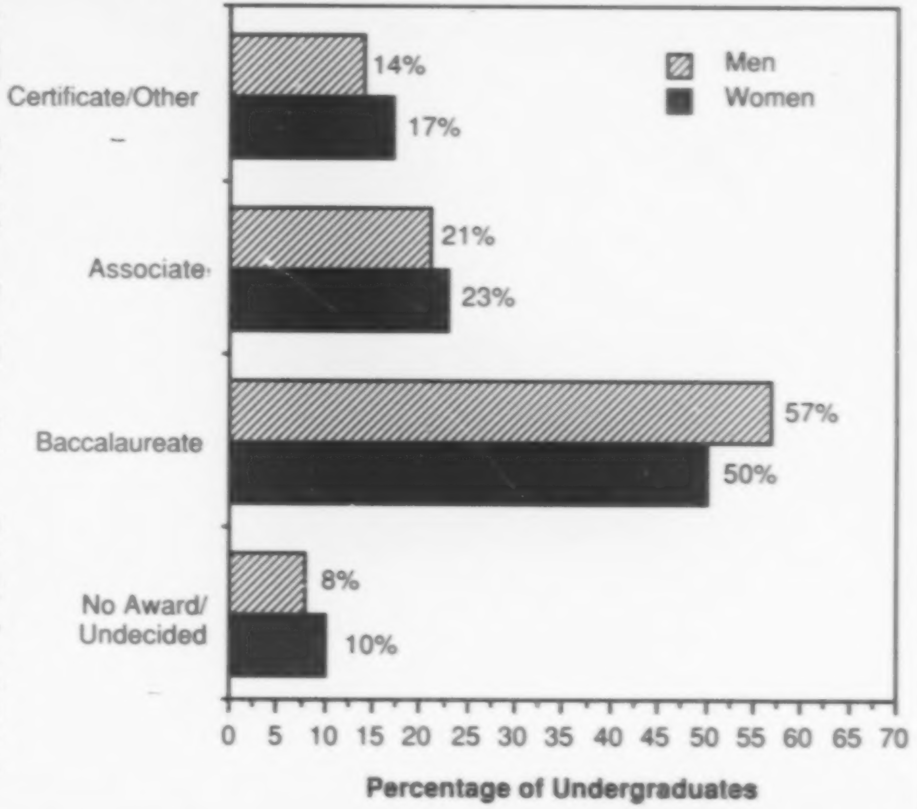


Source: "The Impact of Military Drawdowns on Higher Education Participation", a paper presented by Holly Hexter and Meredith Ludwig of the American Association of State Colleges and Universities at the "Education's Role in the Restructuring of Defense and Other Industries", May 1991. To be published as part of a monograph by the Education Department's Office of Educational Research and Improvement.

Educational Objectives of Undergraduates

- Slightly more than half of the nation's 12.4 million undergraduates in the fall of 1986 indicated that their current educational objective was the baccalaureate degree. A slightly higher percentage of men than women reported having that aspiration.
- Approximately one-fifth (22 percent) of the students were working toward an associate degree, 9 percent were seeking certificates, and 6 percent hoped to earn some other type of postsecondary credential.
- The baccalaureate was the current goal of 65 percent of the full-time undergraduates, whereas it was the target of about one-third (34 percent) of the part-timers.
- One-eighth (13 percent) of the part-time students reported working toward no formal postsecondary education award.

Source: U.S. Department of Education, National Center for Education Statistics. *Profile of Undergraduates in American Postsecondary Institutions.* Data in the report come largely from the Center's 1986-87 *National Postsecondary Student Aid Study* (NPSAS), which included a national sample of students who enrolled in fall 1986 at all academic levels and at all types of institutions. The publication is available for $10 from the Superintendent of Documents, Government Printing Office, Washington, DC 20402; document number 065-000-00422-4.



Educational Objectives by Gender of Student

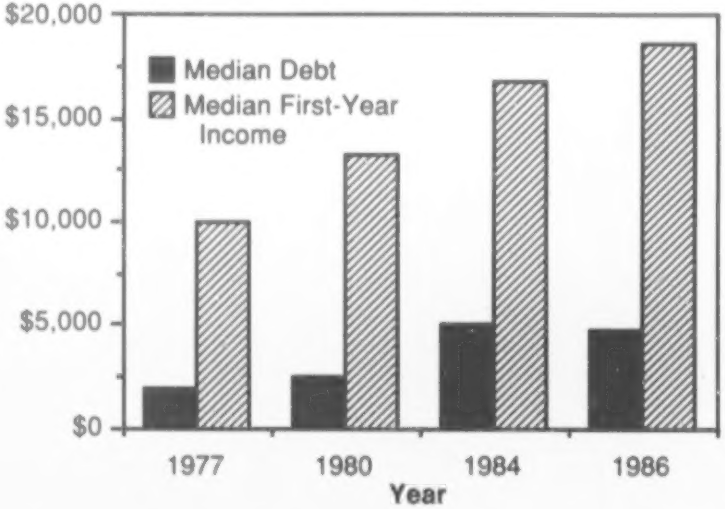
Student Financial Aid

Debt Burden of College Graduates

A recent report contracted by the U.S. Department of Education found that the median student loan debt burden—which is defined as the ratio of debt repayment to income—of college graduates has actually declined, primarily due to a significant increase in graduates' income. Some of the report's findings include:

- One out of two graduating students were in debt in 1986, compared to one out of three in 1977.
- The median debt level of college graduates rose from $2,000 in 1977 to $4,800 in 1986, a 33 percent increase after inflation.
- However, because median incomes of college graduates have risen, loan repayments during the first year after graduation accounted for only 4 percent of 1986 graduates' income, a drop from 5.2 percent of 1977 graduates' income.
- Graduates of independent institutions had significantly higher median debts—$7,000, compared with $4,000 for graduates of public colleges—which represented a higher percentage (5.1 percent) of their first-year income than public institution graduates (3.4 percent).
- Although women had lower median debts than men ($4,700 vs. $5,000), their median incomes were significantly lower ($16,600 vs. $20,500). Therefore, women's median debt burden of 4.4 percent was higher than men's (3.4 percent).
- Students who earned degrees in business and physical sciences had lower debt burdens than graduates in social science or the humanities.
- Only 4.8 percent of 1986 graduates had debt but no first-year income at the time of the survey.

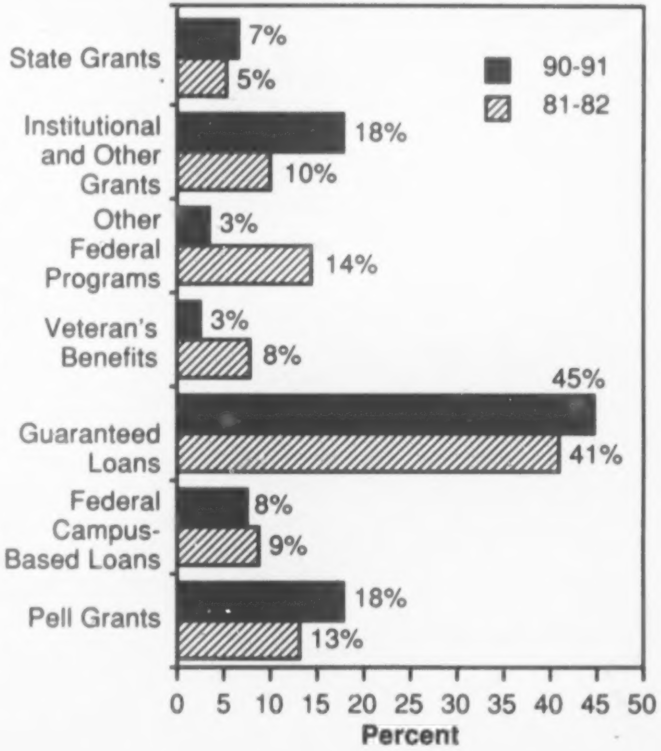
Debt and First-Year Income for College Graduates



Source: U.S. Department of Education. *Debt Burden Facing College Graduates.* Washington, DC,1991. For more information, contact John Kane, Education Department, Rm. 4049, 400 Maryland Ave. SW, Washington, DC 20202, (202)401-0590.

Institutional and State Aid Continues to Rise

- State, institutional, and other grants increased to 25 percent of all student aid in 1990-91, up from 15 percent in 1981-82, a recent study from the College Board found.
- Loans continue to make up half of all aid, as they have for most of the 1980s. In 1990-91, 49 percent of all aid was awarded as loans.
- In 1990-91, the proportion of proprietary school students receiving Pell grants dropped to 23 percent, down from the peak year of 1987-88, when 27 percent of all students awarded Pell grants attended proprietary schools.
- In several grant and loan programs, awards have not kept pace with inflation: the average award per recipient for the College Work Study program dropped from $1,172 (in 1990 constant dollars) in 1981 to $916 in 1990, and the average value of Stafford loans fell from $3,167 in 1981 to $2,640 in 1990.
- In 1990-91, $27.8 billion was awarded in student financial aid, including:
  - — $4.9 billion in Pell grants;
  - — $12.4 billion in loans awarded under the Stafford Student Loan, Parent Loans for Undergraduate Students, and Supplemental Loan for Students programs;
  - — $3.7 billion in federal campus-based aid and other federal programs, including veterans benefits;
  - — $1.9 billion in state grants; and
  - — $4.9 billion in institutional and other grants.



Estimated Student Aid by Source

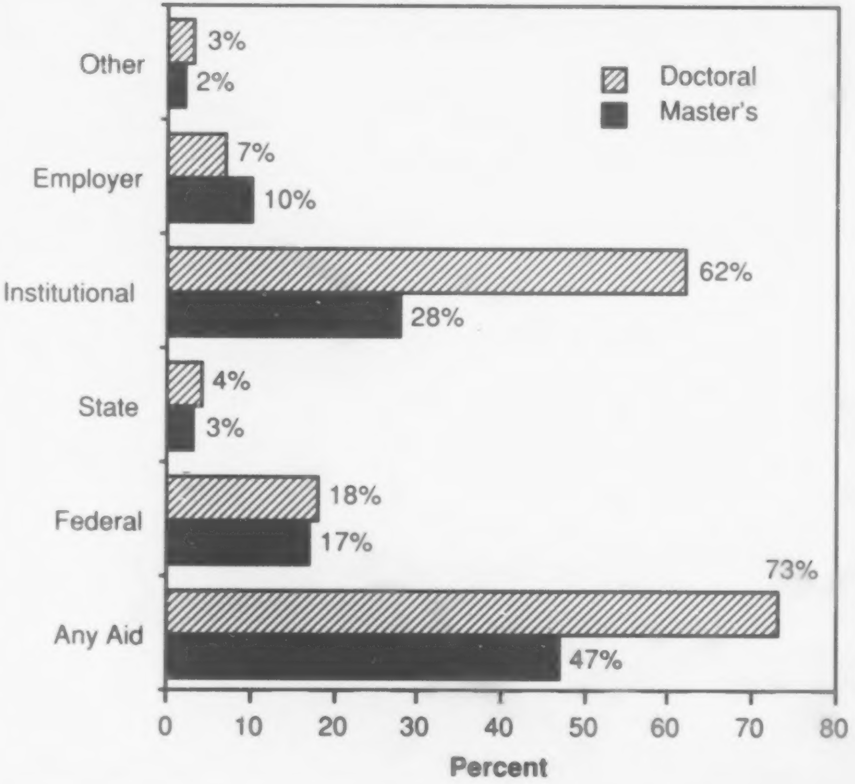
Source: The College Board. *Trends in Student Aid: 1981 to 1991*. College Entrance Examination Board, Copyright 1991. Copies of the report are available for $7 from College Board Publications, Box 886, New York, NY 10101.

Graduate Students Rely on Institutional Aid

- In fall, 1986, about 1 million graduate students were enrolled in American colleges and universities. Sixty-two percent attended public institutions and 38 percent attended independent colleges and universities.
- The overwhelming majority of graduate students (82 percent) in 1986-87 were working toward a master's degree; 18 percent were studying at the doctoral level.
- Overall, the majority of graduate students (61 percent) attended school on a part-time basis in 1986. Sixty-five percent of master's level students were enrolled part-time, while the majority of doctoral students (58 percent) were enrolled full-time.
- Almost three-quarters (73 percent) of doctoral students enrolled in 1986-87 received financial aid, compared to 47 percent of master's students.
- Institutional aid was the main source of assistance among graduate students in 1986-87. Sixty-two percent of doctoral students received institutional aid, as did 28 percent of master's level students.

Source: U.S. Department of Education, National Center for Education Statistics. *Student Financing of Graduate and Professional Education.* March 1989.

Sources of Aid for Graduate Students, 1986-87



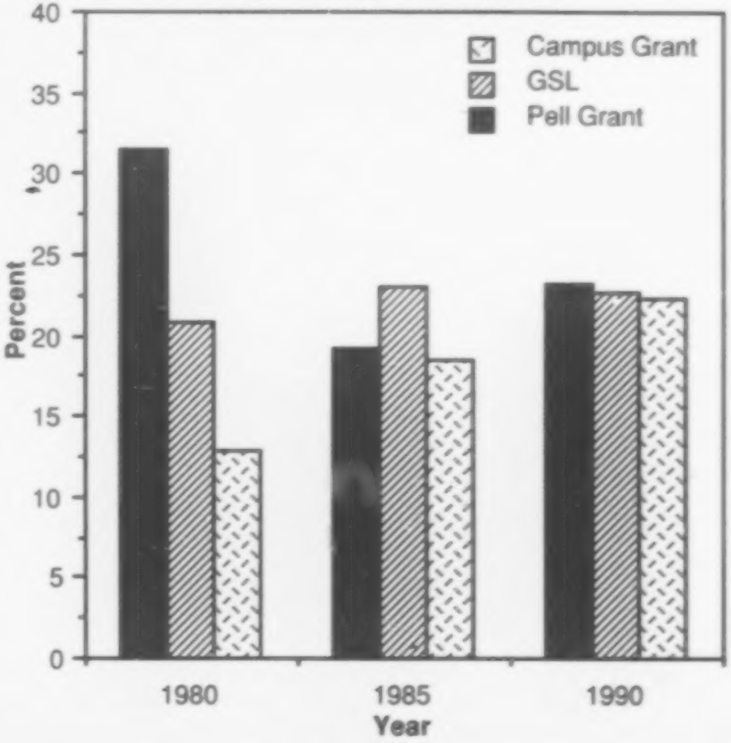
Institutional Student Aid for Freshmen Continues to Rise

Colleges and universities are funding an increasing share of student financial aid. Between 1980 and 1990, institutional aid (i.e. campus grants and scholarships) for entering freshmen at all institutions rose 10 percent.

- Almost three out of ten (29 percent) first-time, full-time freshmen at four year colleges received institutional aid in 1990, compared with 18 percent in 1980. At two-year colleges, only 7 percent of entering freshmen received institutional aid in 1980, yet 15 percent did in 1990.
- Institutions are awarding larger amounts in grants and scholarships, as well. In 1980, only 1 percent of freshmen said they received $1,500 or more in institutional aid, yet this proportion rose to 3 percent in 1985, and 10 percent in 1990.
- The proportion of first-time, full-time freshmen receiving Pell Grants dropped from 32 percent in 1980 to a low of 16 percent in 1988, and has rebounded slightly to 23 percent in 1990.
- The portion of first-time, full-time freshmen taking Guaranteed Student Loans remained fairly constant throughout the decade, with 21 percent receiving a GSL in 1980 and 23 percent in 1990.

Source: Alexander W. Astin. *The American Freshman: National Norms, 1980, 1985, and 1990*. Copies are available for $19.00, prepaid, from the Higher Education Research Institute, UCLA Graduate School of Education, 320 Moore Hall, Los Angeles, CA 90024.

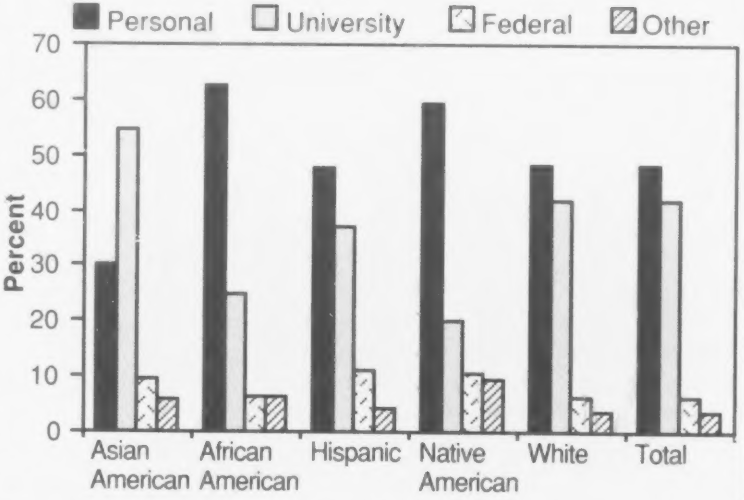
Freshman Participation in Student Aid Programs, 1980-1990



Sources of Support for Ph.D. Candidates

- Almost half (48 percent) of all doctorate recipients in 1990 reported that personal sources were their primary source of financial support.
- Two out of five doctorates (42 percent) said that colleges and universities were the primary sources of support, and only 7 percent said federal funds primarily supported them during their doctoral studies.
- There were significant differences by gender, by race/ethnicity, and by citizenship, yet these distinctions were highly correlated with fields of concentration:
  - — More than half of all women relied on personal sources, yet only one-third of all men did. This difference is related to men's concentration in physical sciences and engineering (fields with high frequencies of university support) and women's concentration in social sciences and education (fields with high frequencies of personal support).
- Asian Americans were more likely to receive university funds (54 percent) than other minority doctorates. Only one quarter of all African Americans, one-fifth of American Indians, and two-fifths of Hispanics said universities provided their primary support. Again, these differences were strongly correlated with fields: Asian Americans were more likely to earn Ph.D.s in science and engineering, while African Americans, American Indians and Hispanics were more likely to earn Ph.D.s in social sciences and education.
- Only 42 percent of U.S. citizens received university funds as their primary source, while 61 percent of permanent residents and 69 percent of temporary residents did.

Primary Source of Support for U.S. Citizen Ph.D.s, 1990



Source: National Research Council. *Summary Report 1990: Doctorate Recipients from United States Universities.* National Academy Press, 1991. For more information, contact the National Research Council, 2101 Constitution Ave NW, Washington, DC 20418.

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HIGHER EDUCATION TODAY

FACTS In Brief

Charles V. Washington
Editor

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HIGHER EDUCATION TODAY

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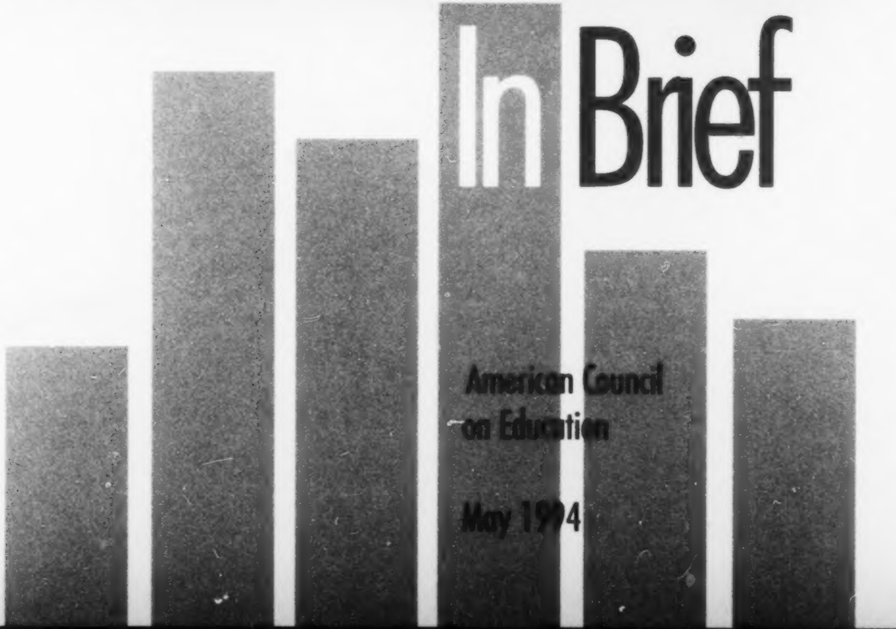

American Council
on Education

May 1994

This publication was produced by the American Council on Education (ACE), Robert H. Atwell, President. ACE, founded in 1918, serves as the nation's major voice in American higher education and represents all accredited postsecondary institutions, as well as national and regional education associations.

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Foreword

This publication is the fourth edition of *Higher Education Today: Facts in Brief*. This concise collection of charts and statistical data depicts the dynamic nature of American colleges and universities and points to trends affecting both students and institutions.

The data contained in this publication were compiled from government publications, studies by higher education associations, research reports, and special data tabulations. Most of the data and charts included in this publication have been reprinted from the "Facts in Brief" feature that appears in *Higher Education and National Affairs*, the biweekly newsletter of the American Council on Education. Statistics have been updated whenever appropriate; regrettably the best available information sometimes is not very recent.

Charles W. Washington, Research Assistant, prepared this special publication. Thanks go to Ebo Otuya, Assistant Director, for reviewing the manuscript and overseeing its preparation. We hope that this publication, and the continuing "Facts in Brief" feature in *Higher Education and National Affairs*, offer a convenient and informative resource for understanding key trends affecting higher education.

Elaine El-Khawas
Vice President for Policy Analysis and Research
American Council on Education

May 1994

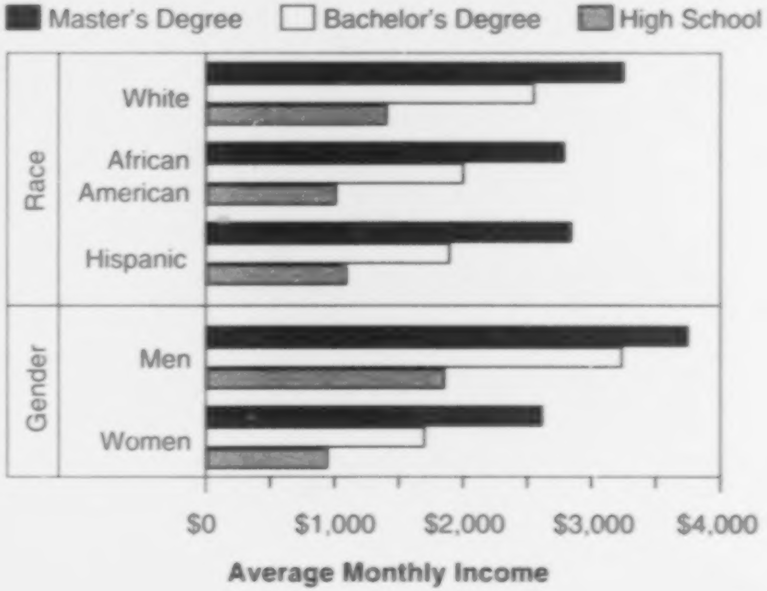
Demographic and Economic Trends

Gaps Persist in Economic Value of Education

Attaining advanced levels of education continues to pay off for Americans, data from the Census Bureau indicate. However, the gains are not spread evenly across gender and racial/ethnic groups.

- In 1990, the average monthly income of college graduates was double that of high school graduates, with bachelor's degree recipients earning $2,116 a month and high school graduates earning $1,077.
- College graduates' salaries increase faster than those of high school graduates. The average monthly income for those with bachelor's degrees increased by 16 percent from 1987 to 1990, while those with high school diplomas saw their income rise by only 9 percent.
- Men reap greater economic benefits from education than women do. In 1990, men with bachelor's degrees earned $3,235 per month, almost twice the $1,698 average monthly income of their female counterparts.
- African Americans and Hispanics who hold bachelor's degrees earn less than their white peers. The average monthly incomes in 1990 for African American college graduates ($2,002) and Hispanic graduates ($1,895) were considerably less than the $2,552 earned each month by white college graduates.
- Individuals who complete associate degrees earn more than those who attend college but do not complete any degree; in 1990, the average monthly income for associate degree holders was $1,879, compared to $1,545 for those who did not earn a degree.

Average Monthly Income by Educational Attainment, Race, and Gender, 1990



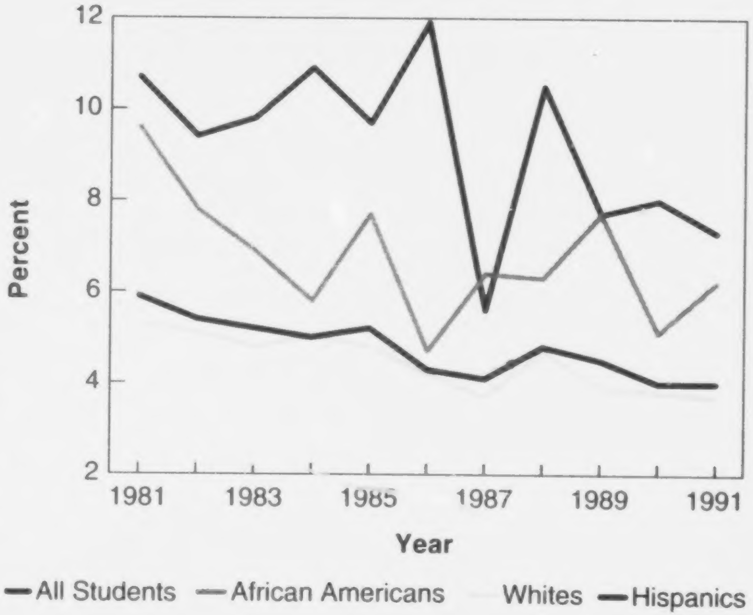
Source: Robert Kominski and Rebecca Sutterlin, **What's It Worth? Educational Background and Economic Status: Spring 1990**, U.S. Bureau of the Census, 1992 Current Population Series P-70, No. 32. The report is available for $3.50 from the U.S. Government Printing Office, Washington, DC 20402, (202) 783-3238. The report's stock number is 803-044-000201.

High School Dropout Rate Down

More students are deciding to stay in high school, according to a report released by the U.S. Bureau of the Census.

- The annual high school dropout rate for students in grades 10 through 12 fell by a third between 1981 and 1991, from 6 percent to 4 percent.
  - — Whites had a dropout rate of 3.7 percent in 1991, compared to 5.3 percent 10 years earlier. A smaller share of African American, and Hispanics left school as well. The dropout rate for African Americans declined from 9.6 percent to 6.2 percent, while the rate for Hispanics fell from 10.7 percent to 7.3 percent.
- The dropout rate for male high school students stood at 3.8 percent in 1991, a decrease of 2.2 percentage points from the 1981 figure of 6.0 percent.
  - — The rate for African American males almost halved during the 1980s, falling from 9.4 percent in 1981 to 5.5 percent in 1991. The Hispanic male dropout rate remained essentially steady, going from 10.6 percent in 1981 to 10.4 in 1991. The rate for white males fell from 5.6 percent in 1981 to 3.6 percent in 1991.
- The share of women high school students who left school each year also fell during the 1980s, from 5.8 percent to 4.3 percent.
  - — The rate for African American females declined from 10.2 percent to 7.0 percent, while the rate for white females fell from 4.9 percent to 3.8. The rate for Hispanic females dropped by more than half during the 1980s, from 10.9 percent in 1981 to 4.8 percent in 1991.

High School Dropout Rates, by Race, 1981–1991 (Grades 10–12)



Source: U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 469, **School Enrollment — Social and Economic Characteristics of Students: October 1991**. The report is available for $9 from the Government Printing Office, Washington, DC 20402, (202) 783-3238.

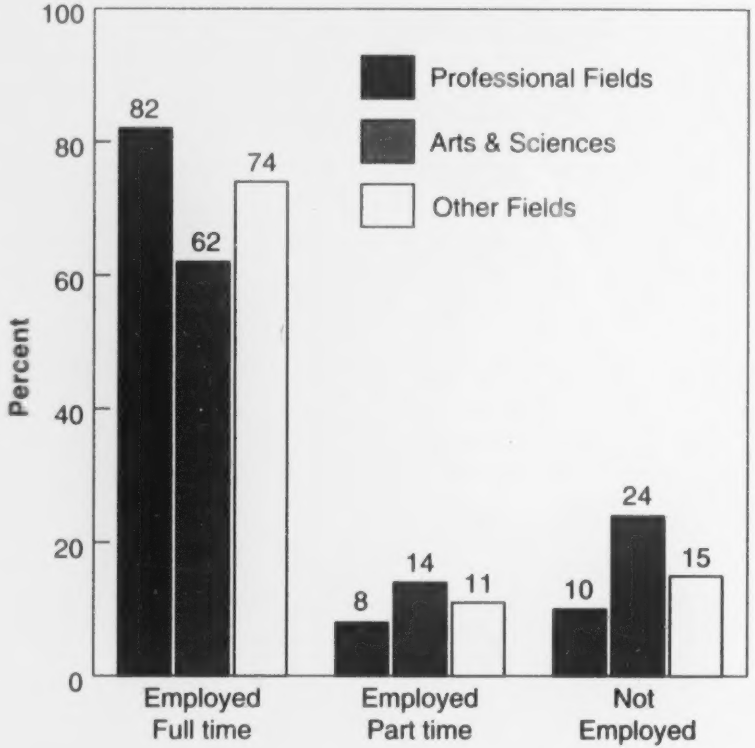
Most College Graduates Find Employment

A National Center for Education Statistics report reveals that one year after graduation, most college degree recipients are employed.

- Among 1989–90 graduates, 84 percent were working one year after receiving their degrees (73.8 percent full time and 10.5 percent part time). Twelve percent were not working, either by choice or because they were pursuing further education. Four percent of the graduates were unemployed.
- Students who majored in professional fields were more likely than arts and science majors to find employment soon after graduation. Employment rates for these groups were 90 percent and 76 percent, respectively.
- Of the full- and part-time employed graduates, 76 percent reported having jobs related to their majors.
- One year after graduation, the mean salary for degree recipients was $23,600, while the median salary was $21,000.
- Thirty-five percent of the 1989–90 graduates were advancing their education within one year of receiving their degrees. Forty-six percent of these students were arts and science majors, while 28 percent majored in professional fields.

Source: National Center for Education Statistics (NCES), **Occupational and Educational Outcomes of Recent College Graduates 1 Year After Graduation: 1991**, NCES 93-162. The report is available for free from the Office of Information Services, (800) 424-1616.

Employment Status of 1989–90 Bachelor's Degree Recipients



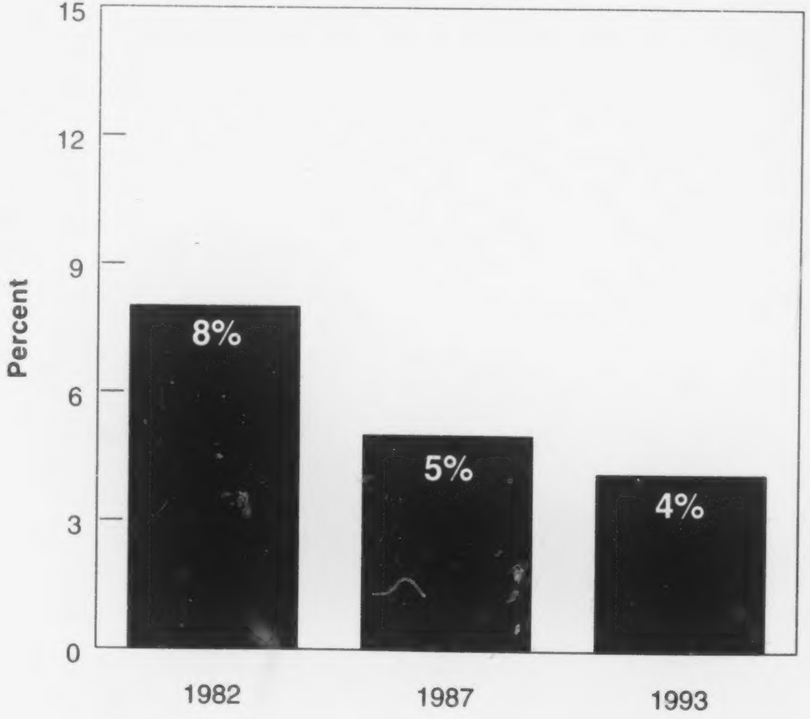
Americans Have More Disposable Income in 1990s

Data on disposable income and saving rates of individuals provide a useful perspective on the financial circumstances of Americans and their ability to pay for college. Disposable income - the amount of money individuals have available after paying taxes - indicates how much money consumers actually have to spend or save.

- In 1993, per capita disposable income was $18,225 in current dollars, 3.5 percent over the 1992 figure of $17,615. However, when adjusted for inflation, per capita disposable income increased by 2.2 percent.
- Between 1989 and 1993, per capita disposable income rose by only 3.4 percent when adjusted for inflation (from $14,015 to $14,491).
- Savings as a percentage of disposable income is generally very modest; individuals today save much less of their income than they did in the early 1980s. In 1993, savings represented 4 percent of disposable income. In contrast, in 1982, individuals saved an average of 8 percent of their disposable income.

Source: **Council of Economic Advisers, Economic Indicators, March 1994**, Government Printing Office, Washington, DC. See also: Cecilia Ottinger, **Economic Trends and Higher Education**, ACE Research Brief Series, Vol. 3, No. 2, 1992. The series is published eight times a year and is available for $58 (ACE members receive a 10 percent discount), from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, (202) 939-9450.

Savings as a Percent of Disposable Income, 1982, 1987, and 1993



ERRATA SHEET

The second sentence of the first bullet on page 8 should read: "However, when adjusted for inflation, per capita disposable income increased by only 0.8 percent."

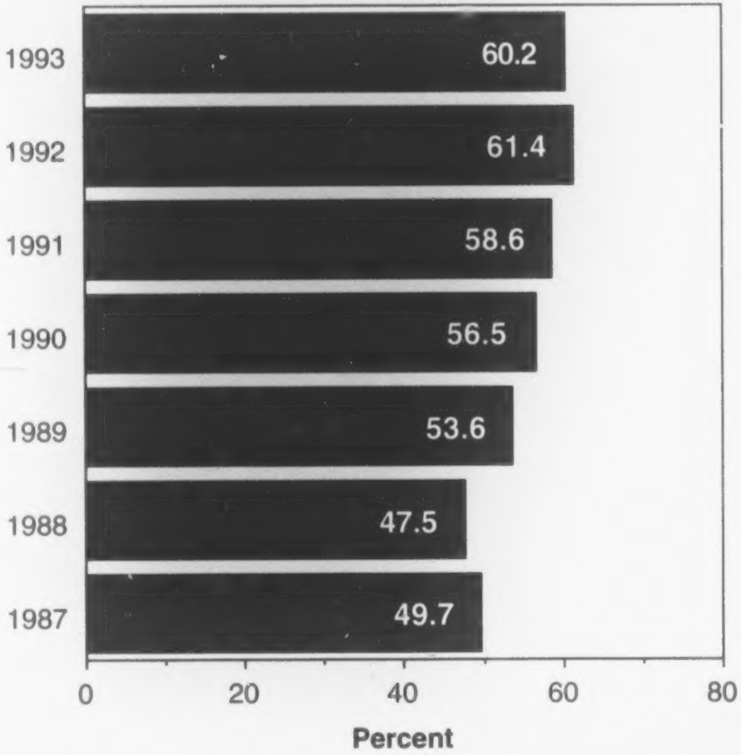
Number of GED Test Takers is Stable

The number of General Educational Development (GED) Test takers remained generally unchanged from 1992 to 1993 after a 2 percent decline between 1991 and 1992, according to a recent report of the American Council on Education.

- In 1993, 790,165 individuals took the GED Tests, compared with 790,565 individuals who took the test in 1992.
- The 490,383 GED diplomas awarded accounted for nearly one in six of all high school diplomas issued in the United States in 1993.
- Six in ten GED candidates (60 percent) plan to pursue postsecondary study.
- In 1993, the average age of GED examinees was 26 years old. However, more than half (58 percent) were under the age of 25.
- The GED Testing Program served more adults with disabilities in 1993, as evidenced by three factors:
  - The number of persons who took special editions of the GED Tests (audio-cassette, Braille, and large print) increased by 6 percent;
  - The number of special accommodations to standard testing conditions increased by 26 percent; and
  - The number of requests for Specific Learning Disability accommodations increased by 58 percent.

Source: American Council on Education, **1993 GED Statistical Report**. The report is available for $10 (prepaid) from the GED Testing Service (Publications), One Dupont Circle, Washington, DC 20036-1135.

Percentage of GED Test Takers Planning Further Study



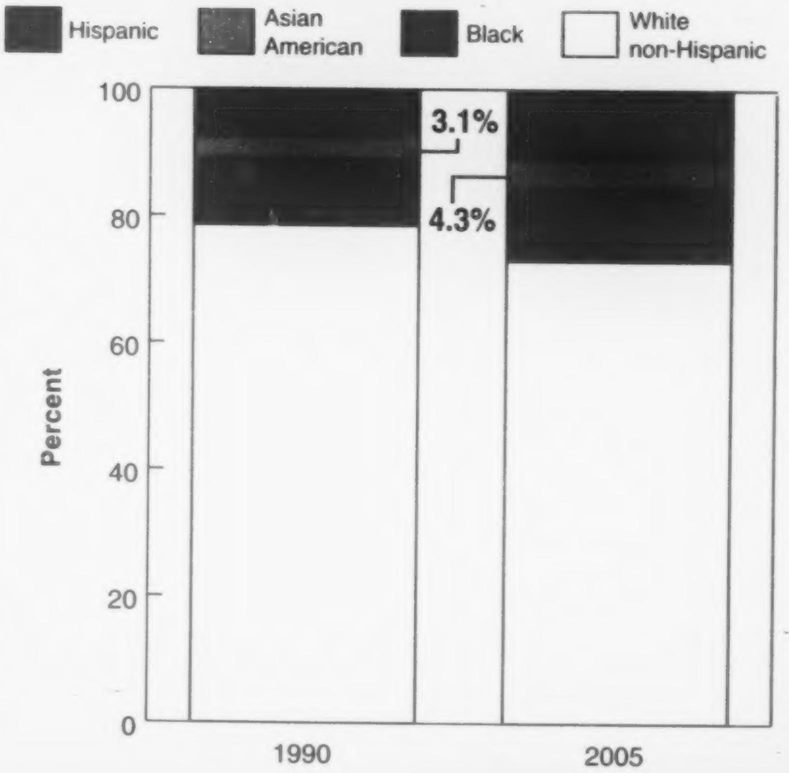
U.S. Labor Force to Change by 2005

Demographic shifts will change the composition and age distribution of the labor force by the year 2005, according to a report released by the National University Continuing Education Association. The report revealed that:

- In 1990, white, non-Hispanics accounted for 78.5 percent of the U.S. civilian labor force. At the same time, African Americans accounted for 10.7 percent of the labor force; Hispanics, 7.7 percent; and Asian Americans, 3.1 percent.
- By the year 2005, demographic shifts will reshape the American labor force and minorities will have a larger share of the jobs, while white, non-Hispanic workers will fall to 73 percent of the total.
- By 2005, Hispanics are predicted to increase their representation in the work force to equal the number of African American workers. Asian American workers will constitute 4.3 percent of the work force.
- By 2005, the 35-to-55 age group will account for 48.3 percent of the labor force. This will be a change in the trend that started back in the 1970s, when 16- to 34-year-olds accounted for nearly half of the labor force.

Source: J. Noah Brown. **Lifelong Learning Trends: A Profile of Continuing Higher Education.** March 1992. Copies of this book are available for $20.00 (association members receive a 20 percent discount), plus $3.00 postage and handling, from the National University Continuing Education Association, Publications Office, One Dupont Circle, Suite 615, Washington, DC 20036-1168.

Composition of the Labor Force by Race/Ethnicity: 1990 and Projected 2005



Status of Women and Minorities

Number of Women CEOs Up at Schools

A recent report based on a survey initiated in 1985 of women college and university presidents indicates that women presidents are still making strides in higher education administration.

- Today, 348 colleges and universities have women chief executive officers (CEOs). This is a 63 percent increase over the 219 women CEOs in 1980.
- Ten percent of the CEOs surveyed were in four-year public institutions, 50 percent were in four-year independent institutions, 24 percent were in two-year public institutions, and 14 percent were in two-year independent institutions.
- Most women CEOs headed small to medium sized institutions. Only 5 percent of the respondents headed institutions with more than 10,000 students. Women CEOs in public institutions led larger organizations than women CEOs in the independent sector.
- Only one woman administered a system serving 250,000 students in 1985. In 1992, 12 women led campuses or systems with more than 20,000 students.
- Twenty-nine percent of the respondents indicated that they headed a women's college, all but one of which were in the independent sector.

Source: Judith Touchton, Donna Shavlik, and Lynne Davis. **Women in Presidencies**. Office of Women in Higher Education, American Council on Education, 1993. This publication is available for $17.50 (prepaid) from Publications Department WPS, American Council on Education, One Dupont Circle, Washington, DC 20036.

Number of Women Chief Executive Officers at Colleges and Universities, 1975–1992

Type of Institution (as of)	1975 (12/31)	1984 (12/31)	1989 (12/31)	1992 (12/31)
Private	**132**	**182**	**182**	**184**
Four-year	98	134	151	154
Two-year	34	48	31	30
Public	**16**	**104**	**146**	**164**
Four-year	5	32	44	58
Two-year	11	72	102	106
Total	**148**	**286**	**328**	**348**

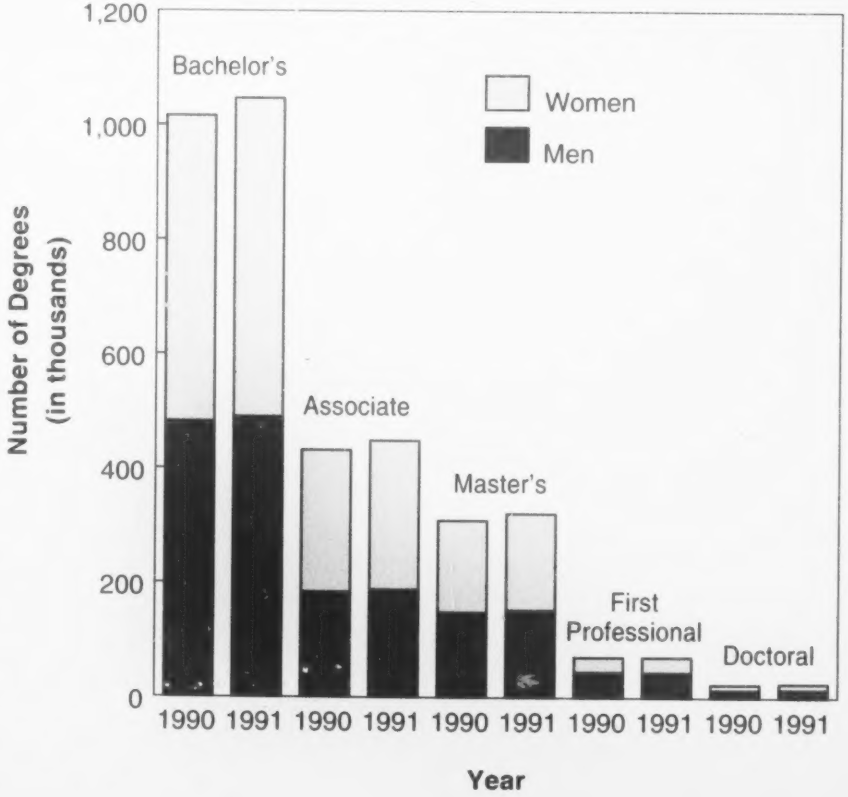
More Women Earning Degrees

The U.S. Department of Education released statistics on degrees conferred at U.S. colleges and universities from 1984 to 1991. Some of the findings of this report are that:

- Between 1990 and 1991, the number of degrees awarded by postsecondary institutions increased by less than 3 percent. In 1991, 1,982,017 degrees were awarded, compared with 1,930,216 in 1990.
- The number of degrees received by women in 1991 (1,075,642) was slightly higher than in the previous year (1,027,430), while the number awarded to men increased from 899,900 to 906,375.
- Between 1990 and 1991, the number of women earning master's degrees rose by 4 percent, from 169,539 to 176,849, compared with a 3 percent increase for men, from 148,872 to 152,907.
- The overall number of associate degrees awarded increased by 3 percent during this period; the number earned by women grew by 4 percent, while men experienced a 1 percent growth. A total of 261,632 women received associate degrees in 1991, compared with 271,809 in 1990; men were awarded 190,221 associate degrees in 1991, up from 188,631 the previous year.

Source: U.S. Department of Education, **Trends in Degrees Conferred by Institutions of Higher Education: 1984-85 through 1990-91**. Copies are available for $3.25 from the U.S. Government Printing Office, Washington, DC 20402, (202)783-3238.

Earned Degrees by Gender, 1990–1991

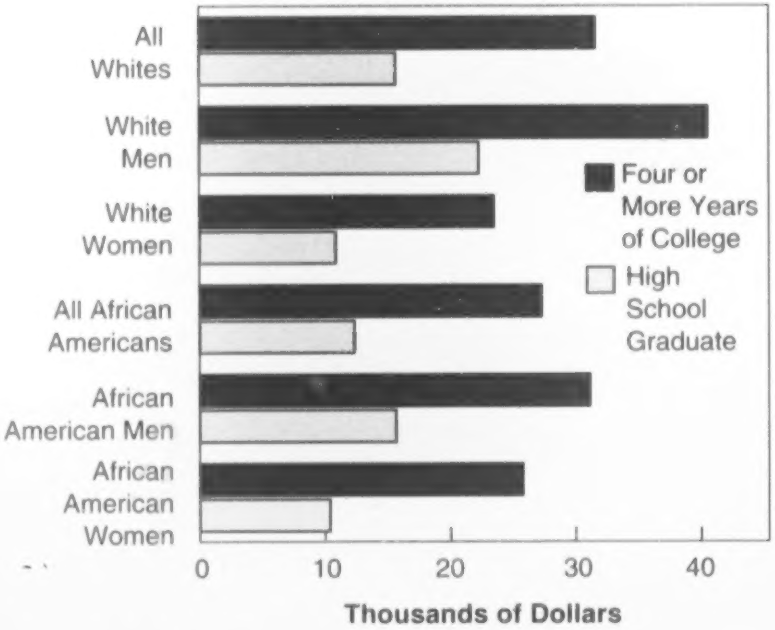


A Profile of the African American Population

Census Bureau data indicate that the nation's African American population reached nearly 31 million in 1992, a 16 percent increase over 1980. African Americans now represent 13 percent of the total U.S. population.

- During the 1980s, the gap between the high school completion rates of 25- to 34-year-old African Americans and whites narrowed, but the gap in college attendance rates did not.
  - — In 1992, 82 percent of African Americans in this age group had completed four years of high school, up from 75 percent in 1980. By comparison, 87 percent of whites of the same age had graduated from high school in both 1980 and 1992.
  - — However, the proportion of African Americans ages 25-34 who attended four or more years of college was slightly more than half the proportion of whites who did so: 12 percent versus 22 percent.
- From 1981 to 1991, African American median family income rose by 13 percent, from $19,074 to $21,550. However, that amount represents only 57 percent of the median family income of whites ($37,780).
- At each level of educational attainment, whites earn more than African Americans, the data show. In 1991, African Americans with high school diplomas earned $12,352, compared with $15,670 for whites who had completed high school. African Americans who completed four or more years of college had median incomes of $27,296; whites with the same amount of schooling earned $31,580.

Median Income by Educational Level, Race, and Gender, 1991



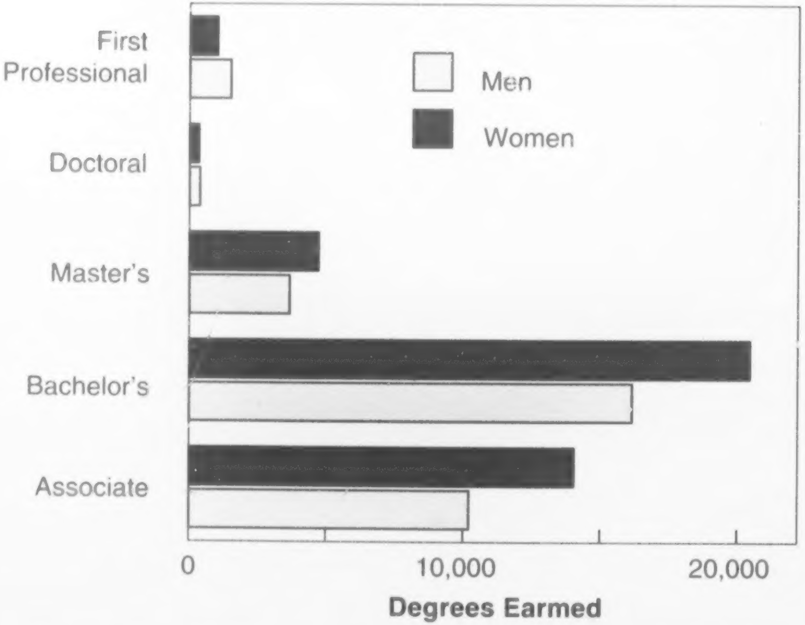
Source: Claude E. Bennett, **The Black Population of the United States: March 1992**, U.S. Bureau of the Census, 1992 Current Population Reports, Series P-20, No. 464. The report is available for $7 from the Superintendent of Government Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954.

A Profile of Latinos in Higher Education

While Latinos have experienced substantial growth in higher education enrollment and degree attainment, data on retention and degree completion rates indicate that most colleges and universities are not successful in retaining Latino students.

- The number of Latino students enrolled in higher education institutions rose from 472,000 in 1980 to 867,000 in 1991 — an 84 percent increase. However, Latinos accounted for only 6 percent of all higher education students in 1991.
- In 1991, Latinos received 5 percent of all associate degrees awarded; 3 percent of bachelor's and master's degrees; 2 percent of doctoral degrees; and 4 percent of first professional degrees. These proportions changed little between 1981 and 1991, although Latinos experienced numerical increases at all degree levels.
- Of the 732 doctorates awarded to Latinos in 1991, Mexican Americans earned 30 percent; Puerto Ricans, 26 percent; and "other Hispanics," 44 percent.
- High school dropout rates for Latinos (35 percent) continue to hamper Latino progress in higher education.
- Fifty-six percent of Latino college students attended two-year institutions in 1991; about 30 percent were enrolled in one of 89 institutions that have Hispanic enrollments of 25 percent or more.
- Latinos accounted for 2.2 percent (11,424) of all full-time faculty in 1991, up from 1.6 percent (7,724) in 1981.

Degrees Earned by Latino Women and Men, 1991



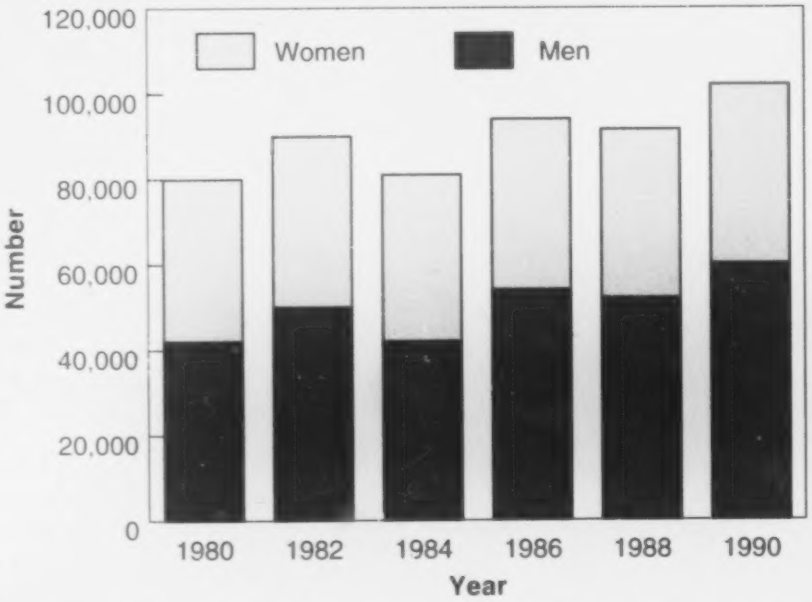
Source: Eileen M. O'Brien, **Latinos in Higher Education**, ACE Research Brief Series, Vol. 4, No. 4, 1993. The series is published eight times a year and is available for $58 (ACE members receive a 10 percent discount), from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, (202) 939-9450.

American Indians in Higher Education

During the 1980s, the American Indian population grew at a faster rate (38 percent) than the total population (9 percent), reaching 1.9 million, according to the 1990 Census. Yet, American Indians represent only 0.8 percent of the total U.S. population.

- In 1990, 66 percent of American Indians 25 years of age and older were high school graduates — a sizable increase from the 56 percent figure in 1980. However, these proportions are lower than those for the overall population, which stood at 75 percent in 1990 and 67 percent in 1980.
- Nine percent of American Indian adults had completed four years of college in 1990, a slight increase from 8 percent in 1980. Again the proportions were higher for the total U.S. adult population: 16 percent in 1980 and 20 percent 10 years later.
- In 1990, a total of 103,000 American Indian students were enrolled in higher education institutions, an 11 percent increase from the 93,000 in 1988, and a 36 percent rise from the 76,000 in 1976.
  - — However, more than half (53 percent) of American Indian students were enrolled at two-year colleges in 1990. This concentration may be explained partially by the expanding enrollments of the 25 tribal colleges, 23 of which are two-year institutions.
  - — Almost half (47 percent) of American Indian students attended college part time in 1990, compared with 43 percent of all students.

American Indian Postsecondary Enrollment, by Gender, 1980 to 1990



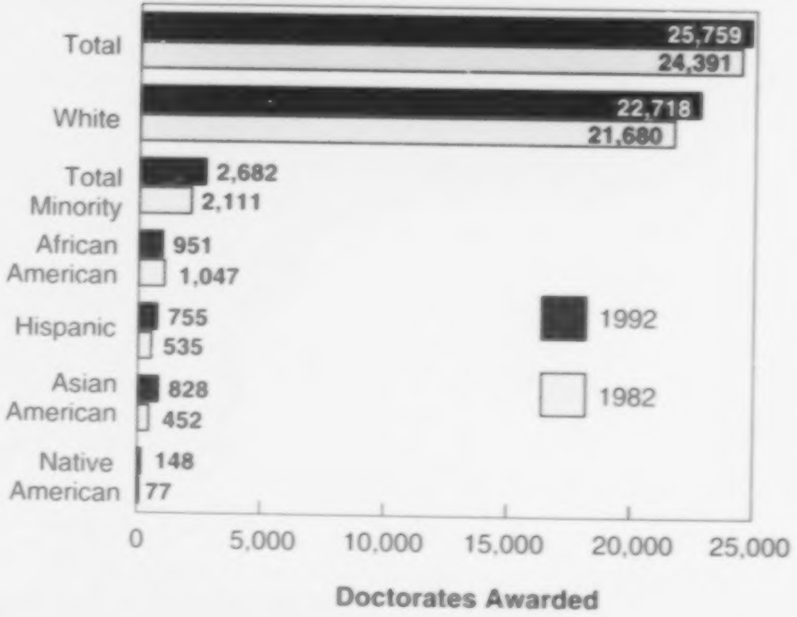
Source: Eileen M. O'Brien, **American Indians in Higher Education**, ACE Research Brief Series, Vol. 3, No. 3, 1992. The Research Brief Series is published eight times a year and is available for $58 for one year. ACE members receive a 10 percent discount. To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, (202) 939-9450.

Students of Color Earn More Ph.D.s

A recent report from the American Council on Education reveals trends in doctoral degree attainment among students of color between 1982 and 1992. The report found that:

- The number of doctoral degrees awarded to racial/ethnic minorities increased by 27 percent during the 10-year period, from 2,111 in 1982 to 2,682 in 1992. During this same time, doctoral degrees awarded to white students increased by 5 percent, from 21,680 to 22,718.
- The number of Ph.D.s awarded annually to African Americans declined. These students earned 1,047 doctorates in 1982, but only 951 in 1992.
- The number of Hispanics earning doctoral degrees increased during the 10-year period.
  - Doctoral degrees awarded annually to Puerto Ricans increased by 54 percent, from 137 in 1982 to 211 in 1992.
  - Mexican Americans received 182 doctorates in 1982 and 205 in 1992, a 13 percent increase.
  - For "other Hispanics," the number of Ph.D.s received increased by 57 percent, from 216 to 339.
- The number of doctoral degrees earned by both Asian Americans and Native Americans during the 10-year period nearly doubled. Native Americans earned 77 doctorates in 1982 and 148 in 1992; Asian Americans earned 452 Ph.D.s in 1982 and 828 in 1992.

Doctorates Awarded to U.S. Citizens by Race/Ethnicity, 1982 and 1992



Source: Cecilia Ottinger, Robin Sikula, and Charles Washington, **Production of Minority Doctorates**, ACE Research Brief Series, Vol. 4, no. 8, 1993. The series is published eight times a year and is available for $58 (ACE members receive a 10 percent discount) from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, (202) 939-9450.

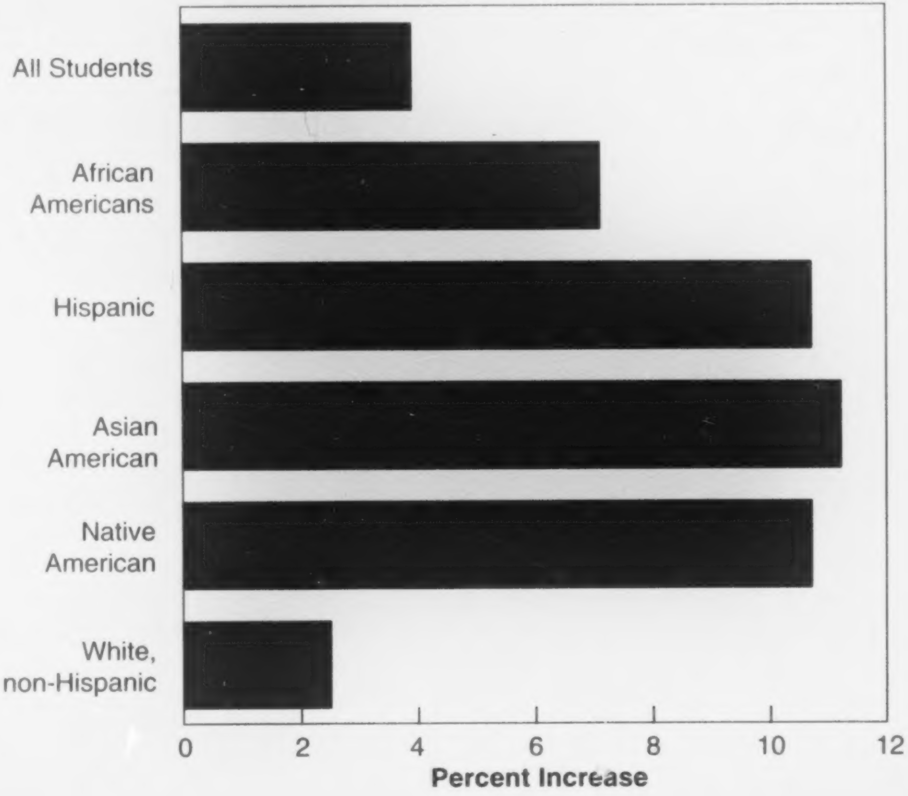
Minorities in Higher Education

Data on enrollment for the 1991-92 school year show that 14,359,000 students were enrolled in higher education. Of these, 9 percent were African American; 6 percent, Hispanic; 4 percent, Asian American; and 0.8 percent, Native American.

- Historically Black Colleges and Universities (HBCUs) account for 21 of the 30 top producers of African American graduates. All of the schools that rank in the top 10 are HBCUs.
- Of the 867,000 Hispanics enrolled in college, around 150,000 were attending institutions in Puerto Rico. In the continental United States, the schools with the highest enrollment of Hispanic students were concentrated in Florida, Texas, and California.
- Asian Americans earned more doctorates and professional degree diplomas than any other minority group.
- Between 1980 and 1991, the percentage of Native Americans enrolled in higher education increased by 11 percent.

Source: **Minority Student Enrollments in Higher Education: A Guide to Institutions with Highest Percent of Asian, Black, Hispanic, and Native American Students**, 1993. Copies of this publication are available for $15 ($14 prepaid) from Garrett Park Press, PO Box 190, Garrett Park, MD 20896, (301) 946-2553.

Increase in Higher Education Enrollments by Race/Ethnicity, 1980–1991

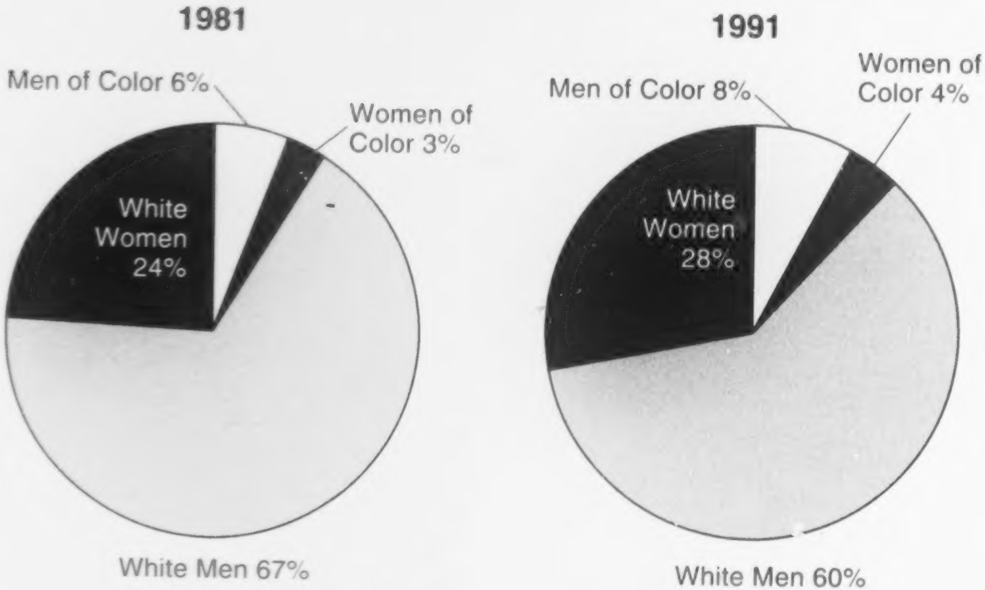


Employment of Faculty of Color in Academeme

A recent American Council on Education (ACE) report looks at the progress U.S. colleges and universities have made in recruiting and employing faculty of color. The study reveals that:

- Between 1981 and 1991, the share of faculty of color in full-time positions increased by 49 percent (43,000 to 64,000), while the overall number of faculty rose by 11 percent (467,000 to 521,000).
- During the 10-year period, the proportion of faculty of color among all full-time faculty grew from 9 percent to 12 percent.
- In 1991, women of color accounted for almost 14 percent of full-time women faculty, while men of color represented 12 percent of full-time men faculty.
- Between 1981 and 1991, the number of women faculty of color increased by 53 percent (7,705), while the number of men faculty of color rose by 43 percent (13,297).
- In 1981, 27 percent of faculty of color were in non-tenure posts, compared with 22 percent of white faculty. By 1991, 33 percent of faculty of color and 27 percent of white faculty were in non-tenure tracks.

Full-Time Faculty by Race/Ethnicity, 1981 and 1991



Source: Deborah J. Carter and Eileen M. O'Brien. **Employment and Hiring Patterns for Faculty of Color**. ACE Research Brief Series, vol. 4, no. 6, 1993. The series is published eight times a year; a one-year subscription is available for $58 (10 percent discount to ACE members). To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, (202) 939-9450.

Campus and Institutional Trends

Universities Increase Expenditures in Research and Development

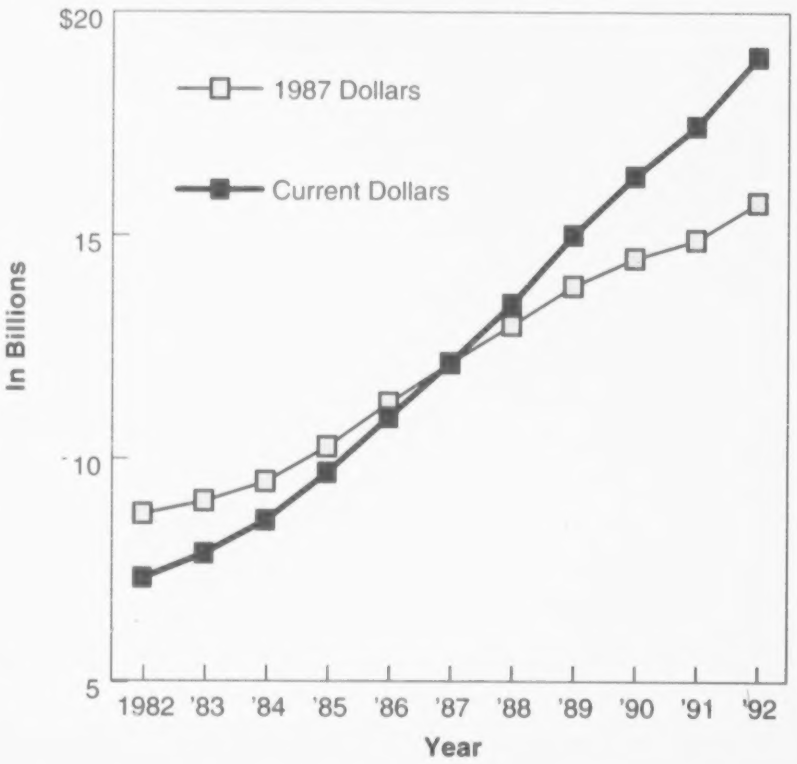
A report released by the American Council on Education (ACE) documents expenditures for university scientific research and development (R&D). The report found that:

- In 1992, universities were major contributors to basic research*, accounting for 49 percent of all such research and 59 percent when work conducted by university-administered federal research centers (FFRDCs) is included.
- Universities in the United States accounted for an estimated $19 billion in R&D activity in 1992, while FFRDCs accounted for another $5.1 billion.
- Between 1985 and 1992, university R&D expenditures grew at an average rate of 6.3 percent annually.
- Industry support for university R&D increased during the last decade. In 1992, industry provided 7.1 percent of all university R&D expenditures, up from 3.9 percent in 1980

**Basic research is work directed toward increases in fundamental concepts and knowledge.*

Source: Elaine El-Khawas and Charles Andersen, **Developing Our Future: American R&D in International Perspective**, ACE Research Brief Series, Vol. 4, No. 7, 1993. The series is published eight times a year and is available for $58 for one year (ACE members receive a 10 percent discount). To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036.

University R&D Expenditures

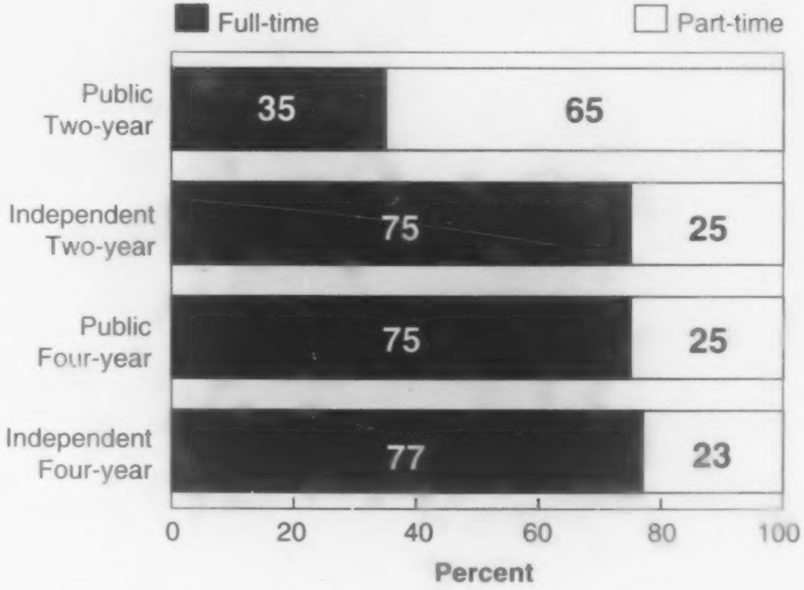


Part-time Enrollment Continues to Increase

Part-time enrollment is the focus of a *Research Brief* released by the American Council on Education (ACE). According to the report:

- From 1970 to 1990, the number of part-time undergraduate students more than doubled, from 2.1 million to almost 5 million. By comparison, full-time enrollment rose by about one-third, climbing from 5.3 million in 1970 to 7 million in 1990.
- Most of this growth occured during the 1970s. By 1980, almost 4.2 million students were enrolled part time, a 95 percent increase from 1970. Yet, during the 1980s, the growth slowed, and the number of part-time students increased by 18 percent.
- Two groups have contributed to this increase: the growing number of students who work and students older than the "traditional" college age (18 to 24 years old). In 1991, two-thirds of part-time students were employed. In 1990, only one out of four part-time students fell in the traditional age range, compared with more than half (53 percent) of full-time undergraduates.
- Projections indicate that the number of part-time undergraduates will continue to increase. By 1995, an estimated 5.4 million students will enroll part time, accounting for 44 percent of all students. By the year 2002, projections suggest that 5.7 million, or 42 percent, of the 13.7 million undergraduates will attend part time.

Percentage of Full-time vs. Part-time Students, 1990



Source: Eileen M. O'Brien, **Part-Time Enrollment: Trends and Issues,** ACE Research Brief Series, Vol. 3, No. 8, 1992. The Research Brief Series is published eight times a year and is available for $58 (ACE members receive a 10 percent discount), prepaid, from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, (202) 939-9450.

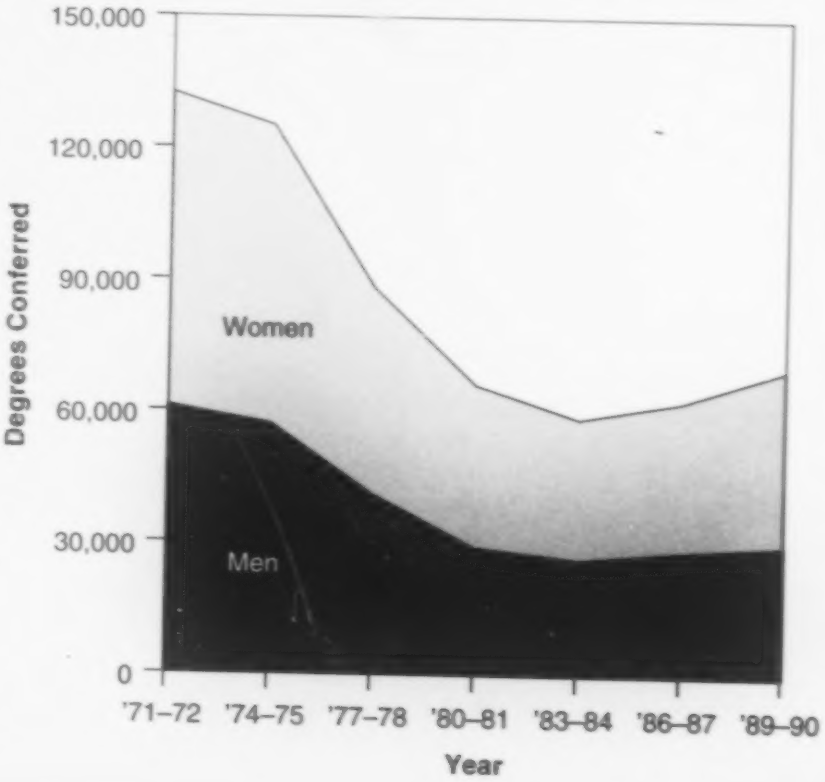
Humanities Baccalaureates Are Up

A report released by the American Council on Education (ACE) includes information on degrees in the humanities. The following are some of the findings of the report.

- Over the last decade, the number of humanities degrees rose slowly but steadily. In 1981, colleges and universities awarded 64,878 bachelor's degrees in the humanities; in 1990, 80,393 such degrees were awarded.
- The proportion of bachelor's degrees conferred in the humanities changed slightly in the 1980s. Humanities degrees represented 8 percent of all B.A.s in 1990, up 1 percent from 1981.
- In 1990, almost three-quarters (73 percent) of humanities degrees were earned in two fields: English and history accounted for 45 percent and 28 percent of these degrees, respectively.
- The greatest increase in humanities baccalaureates has been in the number of English degrees, which rose by 44 percent between 1981 and 1990.
- About six in 10 (58 percent) humanities bachelor's degrees were earned by women in 1990, almost the same proportion as in 1981 (57 percent).

Source: Robin D. Sikula, **Students in the Humanities**, ACE Research Brief Series, Vol. 3, No. 6, 1992. The Research Brief Series is published eight times a year and is available for $58 (ACE members receive a 10 percent discount), prepaid, from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, (202)939-9450.

Humanities Baccalaureates, 1971–72 to 1989–90



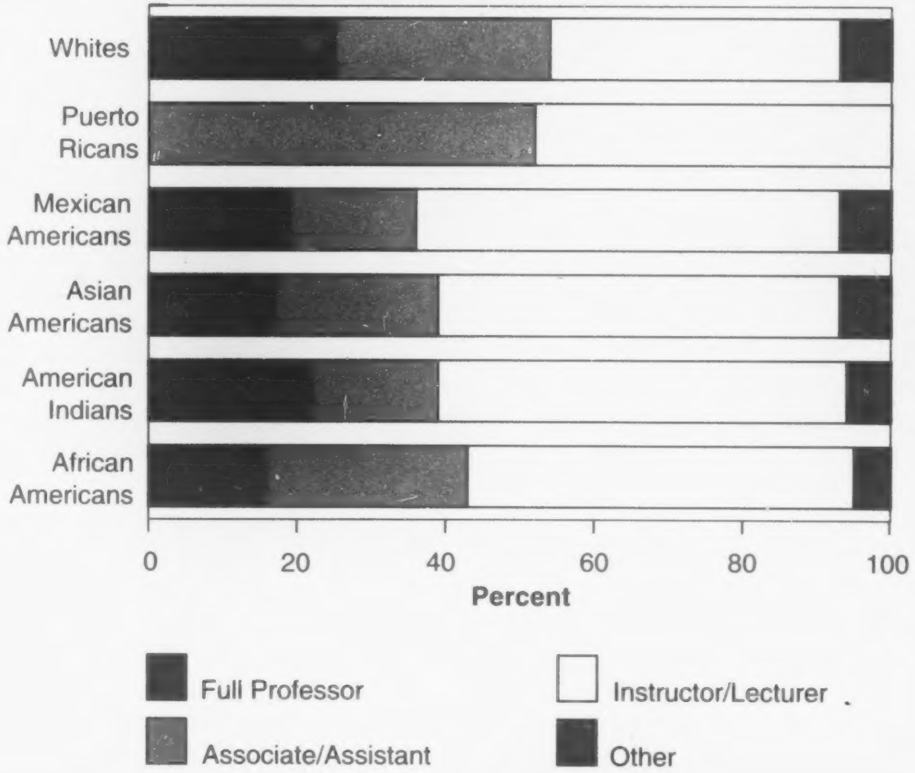
A Profile of Community College Faculty

A *Research Brief* released by the American Council on Education reveals the following information about community college faculty.

- Part-time faculty are a major component of faculty at two-year institutions. In 1987, more than half of faculty at two-year colleges (58 percent) were employed part time.
- Faculty of color held only 8 percent of full-time faculty positions at public two-year colleges and 3 percent at independent two-year institutions.
- In 1989-90, African Americans held 4 percent of all full-time appointments in two-year colleges, followed by Asian Americans and Hispanics (each with 2 percent), and American Indians, with 1 percent.
- In 1987, male faculty clearly outnumbered female faculty at public two-year institutions (62 percent vs. 38 percent).

Source: Deborah J. Carter and Cecilia A. Ottinger, **Community College Faculty: A Profile**, ACE Research Brief Series, Vol. 3, No. 7, 1992. The Research Brief Series is published eight times a year and is available for $58 (ACE members receive a 10 percent discount), prepaid, from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, (202) 939-9450.

Distribution of Full-time Two-year Faculty by Rank and Race/Ethnicity, 1989



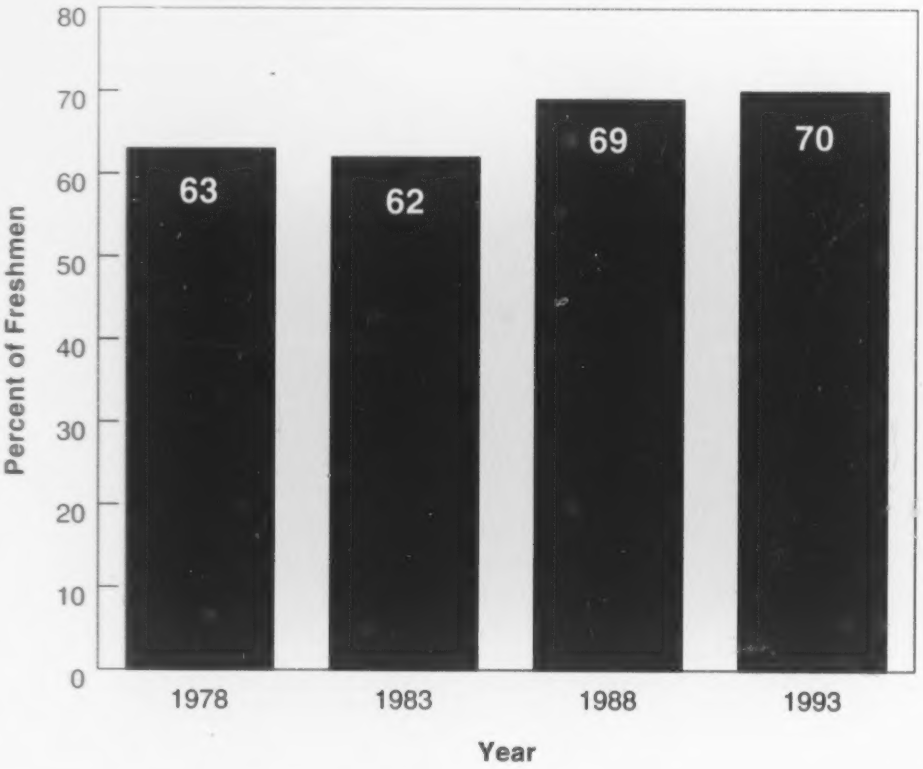
Entering Students Applying To More Schools

A larger share of first-time, full-time freshmen applied to more than one higher education institution last year than in the 15 previous years.

- In 1993, 70 percent of entering freshmen indicated they had applied to more than one college or university. In 1978, 63 percent of first-year students applied to more than one school.
- About the same number of first-year male and female students have applied to more than one college. In 1993, 71 percent of males and 70 percent of females indicated they had applied to more than one institution.
- Last fall, 82 percent of freshmen at independent universities said they had sent applications to two or more higher education institutions, while 58 percent of public university freshmen said they had done so.
- In 1993, 70 percent of freshmen attended their first-choice college, compared with 68 percent in 1988 and 76 percent in 1978.

Source: Alexander Astin, et al., **The American Freshman: National Norms for Fall 1978, 1983, 1988, and 1993**. The 1993 edition is available for $23 from the Higher Education Research Institute, Graduate School of Education, University of California, Los Angeles, 320 Moore Hall, Los Angeles, CA 90024-1521, (310) 825-1925.

Full-time Freshmen Who Applied to More Than One College/University

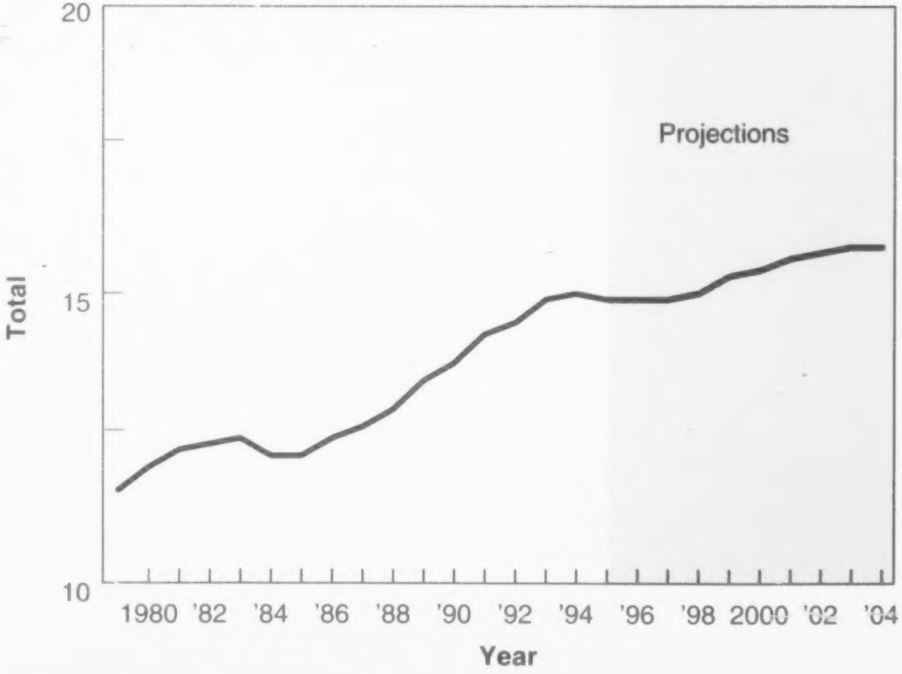


Higher Education Enrollment Expected to Increase

According to the U.S. Department of Education, between 1992 and 2004, the number of students enrolled in institutions of higher education is expected to increase by 9 percent, from 14.6 million to 15.9 million.

- The number of students ages 18 to 24 is expected to decline by 4 percent between 1992 and 1997. However, between 1997 and 2004, the number of students in this age group is expected to increase by 12 percent.
- By the year 2004, women will account for more than half (55 percent) of the students enrolled in higher education. Projections show that by 2004, there will be 8.7 million women and 7.2 million men enrolled in higher education.
- Full-time enrollment is expected to increase by 12 percent between 1992 and 2004, peaking at 9.1 million. Part-time enrollment is expected to reach 6.8 million by the year 2004.
- Enrollment at public institutions is expected to reach 12.4 million by 2004. Public four-year and two-year institutions expect enrollments of 6.7 million and 5.7 million, respectively.
- Enrollment at four-year private institutions will increase from 2.9 million in 1992 to 3.2 million by 2004, while two-year private institution enrollment is projected to increase from 260,000 in 1992 to 289,000 by 2004.

Total Enrollment in Institutions of Higher Education, Fall 1979 to Fall 2004



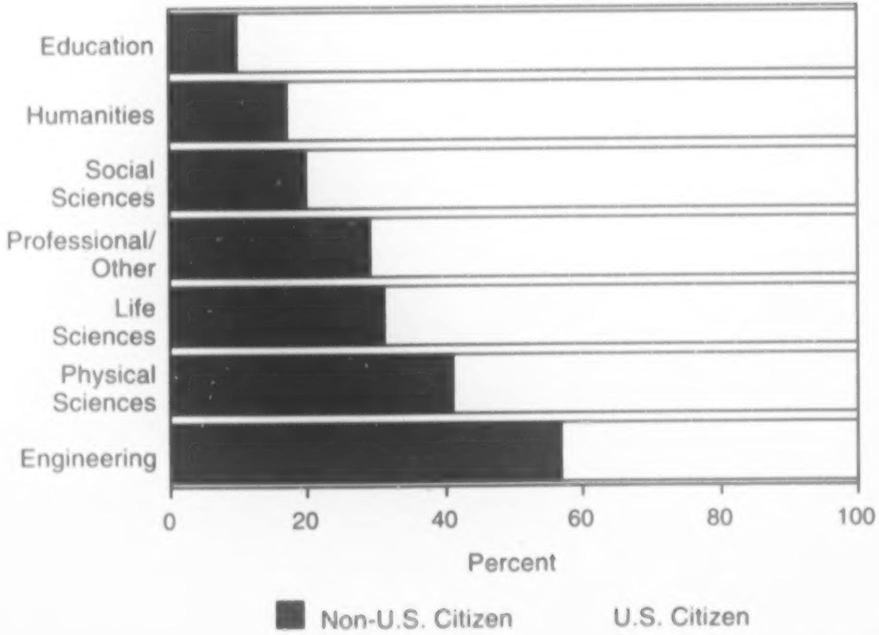
Source: National Center for Education Statistics (NCES). **Projections of Education Statistics to 2004.** The publication is available for $9.50 from the U.S. Government Printing Office, Washington, DC 20422 (202) 783-3238.

Americans Receiving More Ph.D.s

During the decade 1982 to 1992, the number of Ph.D.s awarded annually to U.S. citizens increased slightly, from 24,391 to 25,759. During the same period, the number of doctorates awarded to non-U.S. citizens doubled, from 5,413 to 11,846, according to a report released by the National Research Council. Other highlights of the report are:

- U.S. citizens are receiving a decreasing proportion of all doctorates awarded. In 1992, Americans earned 70 percent of all doctorates, while non-U.S. citizens earned 30 percent; six years earlier, Americans earned 77 percent of all Ph.D.s.
- In 1992, one-quarter (25 percent) of doctorates awarded to non-U.S. citizens went to those with temporary visas. Ten years earlier, temporary visa holders earned 13 percent of all doctorates awarded.
- The fields in which non-U.S. citizens received the greatest proportion of total doctorates awarded in 1992 were engineering (57 percent) and physical sciences (41 percent).
- In 1992, U.S. colleges and universities awarded 38,814 Ph.D.s, up slightly from 1991, when 37,541 Ph.D.s were awarded. (Note: The 1992 total included 1,209 doctorates awarded to people of unknown citizenship.)

Doctorates Awarded, by Field and Citizenship, 1992



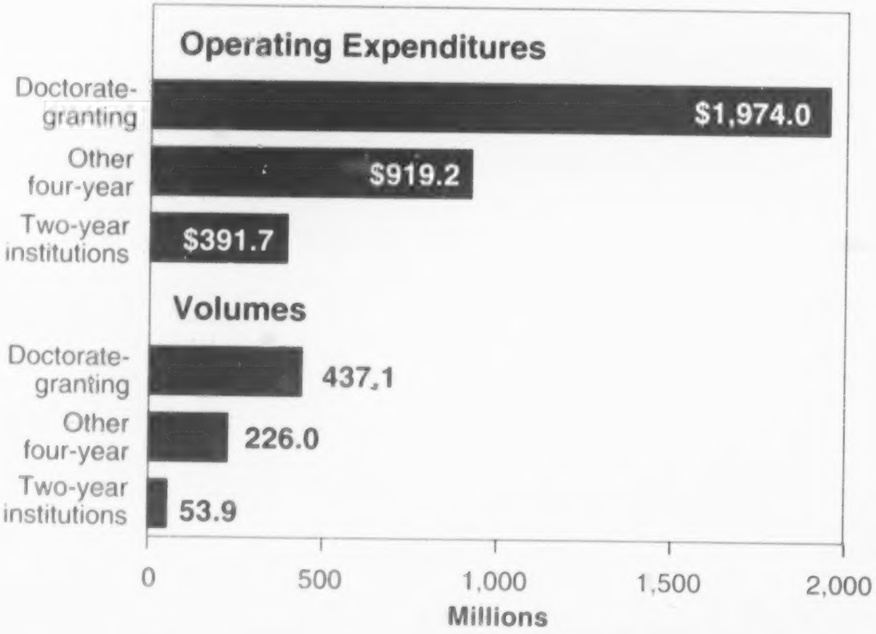
Source: P. Ries and D.H. Thurgood, **Summary Report 1992: Doctorate Recipients from United States Universities**, National Academy Press. The report is available from the Doctorate Records Project, Office of Scientific and Engineering Personnel, National Research Council, Rm. 2133-218, 2101 Constitution Ave., NW, Washington, DC 20418.

Academic Libraries Hold More Than 700 Million Volumes

A recent survey of academic libraries indicates that in 1990, the nation's higher education institutions had collections totaling 717 million volumes.

- Schools offering baccalaureate degrees or higher had 92 percent of all volumes, for a total of 663 million.
- Libraries at doctoral institutions held 61 percent of all volumes.
- Four percent of all institutions (145) reported having collections in excess of 1 million volumes.
- Operating expenditures at academic libraries amounted to $3.3 billion, of which the largest share (52 percent) went for wages and salaries. Serial subscriptions accounted for 17 percent, and print materials accounted for 12 percent of operating expenditures.
- Spending at doctoral institution libraries accounted for 58 percent of all operating expenditures.
- About 100,000 full-time equivalent (FTE) staff members were employed at academic libraries. They included:
  - — 26,000 librarians and other professional staff;
  - — 42,000 other paid staff; and
  - — 30,000 student assistants.
  - — Just over half (52,000) of FTE library staff were at doctoral universities.

Expenditures by and Volumes in Academic Libraries, 1990 (in millions)



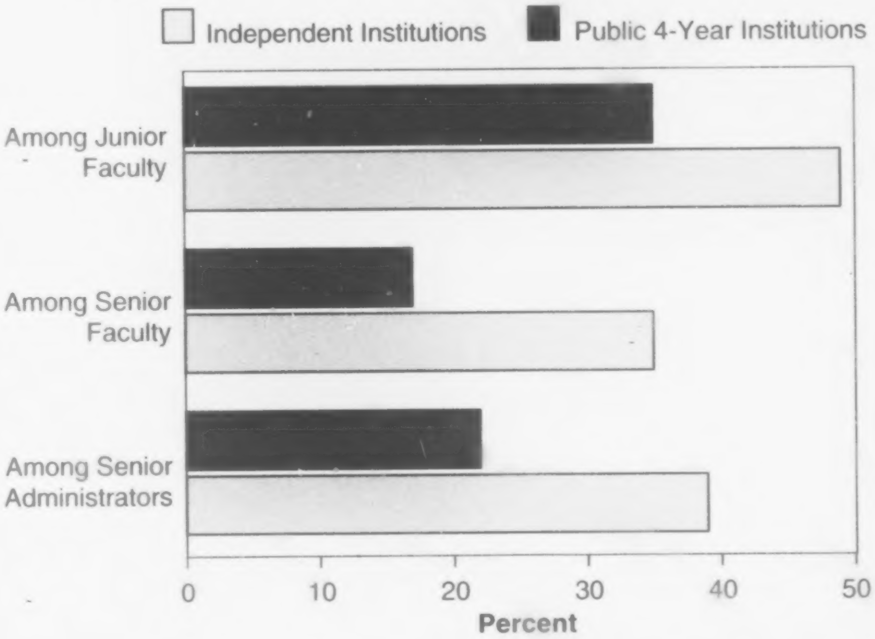
Source: U.S. Department of Education, National Center for Education Statistics, **Academic Libraries: 1990**. The report is available for $4.25 from New Orders, Superintendent of Documents, P.O. Box 37194, Pittsburgh, PA 15250-7954. A diskette with data from responding institutions also is available for $75. For ordering information, call (202) 219-1847/1522.

Administrators Rate Women's Progress

U.S. higher education has devoted considerable effort over the last two decades to improving the status of women. However, data from *Campus Trends, 1993* revealed that more than half of the administrators surveyed were not pleased with their institution's progress in achieving a fair representation of women.

- Only one-third (33 percent) of administrators described the representation of women among senior administrators on their campuses as "excellent" or "very good." Forty-two percent gave their schools an "adequate" or "poor" rating in this area.
- Slightly more than one-third (38 percent) of the administrators surveyed thought women were well represented on their boards of trustees.
- Similarly, only 37 percent of the survey respondents gave "excellent" or "very good" ratings on the representation of women among their senior faculty.
- Half of the administrators gave "excellent" or "very good" ratings on the representation of women among their junior faculty.
- More than half (55 percent) of respondents also gave high ratings to their institutions on the inclusion of women faculty on search committees.
- Half thought that women were well represented on faculty promotion and tenure committees.

Institutions Ranking Themselves as "Excellent" or "Very Good" for Women's Representation



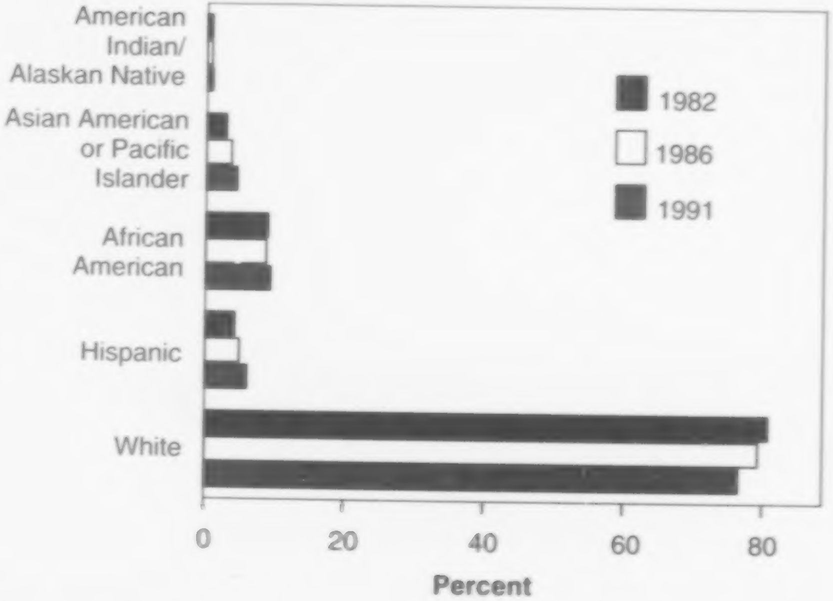
Source: Elaine El-Khawas, **Campus Trends, 1993**. The report is available for $13 ($10 for ACE members), prepaid, from the American Council on Education, Division of Policy Analysis and Research, One Dupont Circle, Washington, DC 20036.

Trends in Higher Education Enrollment

Higher education enrollment increased significantly during the 1980s, but these changes were more evident for certain groups and specific types of institutions, an Education Department report indicates.

- Proportionately, minority groups made more gains in enrollment than white non-Hispanics. Minority enrollment increased by 43 percent at public institutions and 47 percent at independent colleges between 1982 and 1991, while white non-Hispanic enrollment increased by 11 percent at public colleges and 7 percent at private institutions.
- The greatest overall increases in undergraduate enrollment occurred at two-year institutions. Between 1990 and 1991 alone, two-year institutions were responsible for 76 percent of the net increase in enrollments at institutions of higher education.
- Women continued to increase their higher education enrollment. In 1982, 51 percent of the students at the nation's colleges and universities were women. By 1991, the share of women had risen to 54 percent.
- Graduate enrollment increased by 33 percent between 1982 and 1991.
- Enrollments in first-professional degree programs did not change dramatically over the years. However, the 1991 enrollment figure of 281,000 students was the largest recorded during the nine-year period.

Percentage of Enrollment in Higher Education by Race/Ethnicity



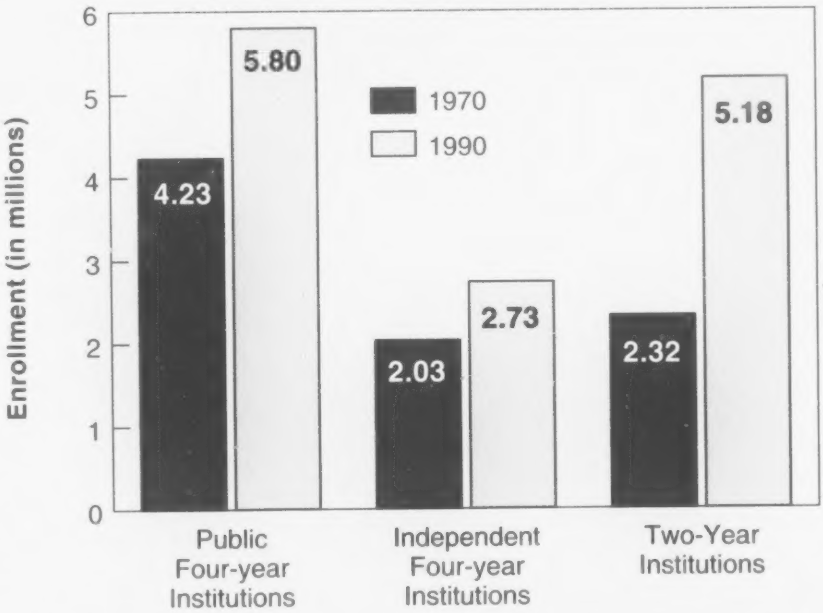
Source: U.S. Department of Education, National Center for Education Statistics, **Trends in Enrollment in Higher Education by Racial/Ethnic Category: Fall 1982 through Fall 1991**. The report is available free of charge from the U.S. Department of Education, OERI, Education Information Branch, Room 300, 555 New Jersey Ave., NW, Washington, DC 20208-5641, (800) 424-1616.

Education Trends at Public Institutions

Over a 20-year period, the share of students enrolled and baccalaureate degrees earned at the nation's public four-year universities changed only slightly. A new study that reviews trends in enrollment and baccalaureate degrees at public universities reveals that:

- In 1990, nearly two-thirds (65 percent) of all students at four-year institutions attended public universities; 20 years earlier, public schools enrolled about the same share (68 percent).
- Public universities enrolled 70 percent of the undergraduates at four-year institutions; 64 percent of the graduate students; and 41 percent of first professional students in fall 1990. Twenty years earlier, enrollment shares for these groups at public universities were 68 percent, 70 percent, and 44 percent, respectively.
- Public universities awarded 66 percent of the baccalaureate degrees earned in 1989 (the most recent figures available), compared with 63 percent in 1969.
- More than half (58 percent) of master's degrees earned in 1989 were awarded by public four-year universities; 20 years earlier, their share was 65 percent.
- The share of first professional degrees awarded by public four-year institutions decreased by 1 percentage point between 1969 and 1989, from 42 percent to 41 percent. During this period, the share of doctoral degrees awarded by these schools increased from 63 percent to 64 percent.

Enrollment by Type and Control of Institution, 1970 and 1990



Source: Charles J. Andersen, **Enrollment and Baccalaureates at Public Universities**, 1970 & 1990, ACE Research Brief Series, Vol. 4, No. 3, 1993. The series is published eight times a year and is available for $58 for one year (ACE members receive a 10 percent discount). To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036.

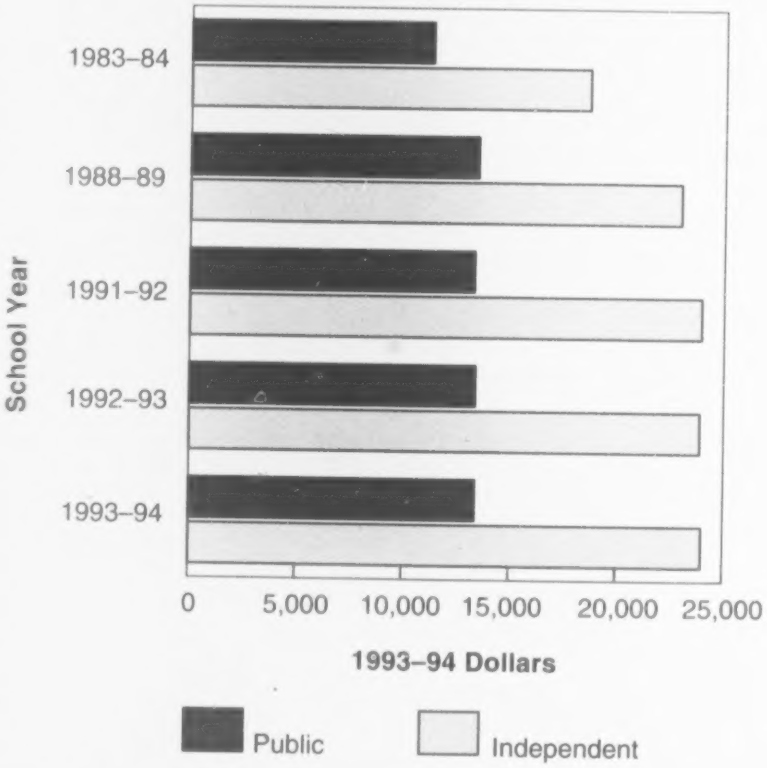
Education Expenditures Still Rising

A recent report from the U.S. Department of Education predicts that education expenditures will reach a record high this year.

- For the 1993–94 school year, overall education spending is expected to total $493.3 billion. This amount represents a 3 percent increase over last year, when the U.S. spent $466.1 billion. After adjusting for inflation, education spending increased by 50 percent during the last decade.
- The share of the U.S. gross domestic product spent on education also should rise to an all-time high of 7.9 percent for school year 1993–94, up from 6.7 percent in 1983.
- Higher education institutions will spend about $198.1 billion this academic year, a 3 percent boost over 1992. During the past decade, college and university spending increased by 53 percent, after adjusting for inflation.
- Predictions call for average spending per full-time college student to reach $15,900 in 1993–94, a 23 percent rise since 1983–84. Per pupil spending for all levels of education grew by 29 percent during this same period. Spending by public colleges should average $13,400 per student, while private colleges should spend an average of $24,000 per student.

Source: U.S. Department of Education, **1993 Back-to-School Forecast**. The report, in the form of a press release, is available free of charge from the U.S. Department of Education, Office of Public Affairs, 400 Maryland Ave., SW, Washington, DC 20202-0322.

Higher Education Expenditures Per Full-time Student

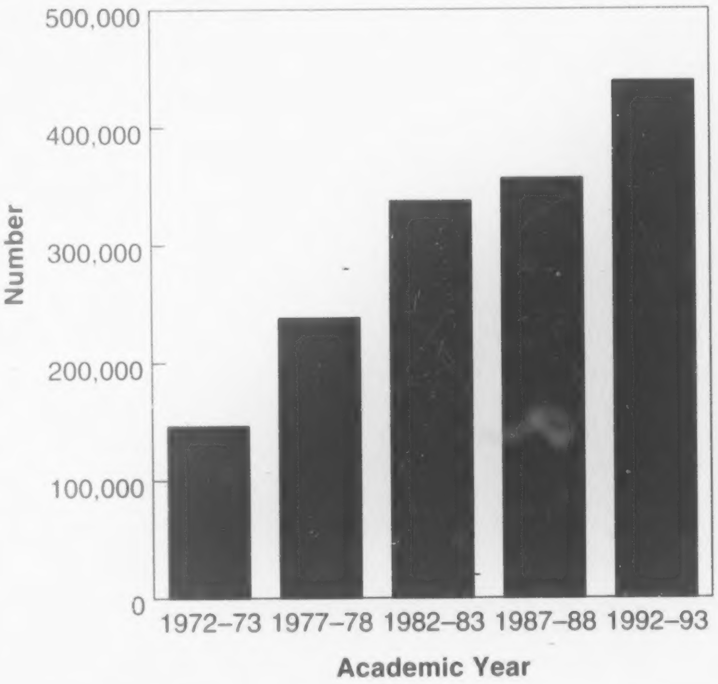


Foreign Enrollment Still Increasing

The United States enrolled the largest number of foreign students of any country in the world, hosting nearly one-third of all students worldwide who were studying abroad, according to a recent publication that focuses on international students. Other findings of the study include:

- In 1992–93, 438,618 foreign students were enrolled in U.S. colleges and universities, up from 419,585 the previous academic year.
- More women are studying abroad than in previous years. In 1992–93, 37 percent of international students were women, representing a 6.6 percent increase from the previous year.
- In 1992–93, nearly half of the foreign students (48 percent) were enrolled at the undergraduate level, 44 percent at the graduate level, and 8 percent in other studies (e.g., intensive English courses).
  - — Among those studying at the undergraduate level, 37 percent were working toward a bachelor's degree, and 11 percent toward an associate degree.
- More than one-third (36 percent) of foreign students were attending independent institutions; this proportion is considerably higher than the 19 percent of American students who attend such schools.
- The majority (87 percent) of foreign undergraduates were enrolled at four-year colleges, while 13 percent were at two-year institutions.
- More than half (52 percent) of foreign students were from Asia, particularly China, Japan, Taiwan, and the Republic of Korea; 13 percent came from Latin America; and 14 percent came from Europe.

Foreign Student Enrollment, 1972–1993



Source: Institute of International Education (IIE), **Open Doors 1992–93: Report on International Exchange**. The report is available for $39.95 (prepaid) from IIE, 809 United Nations Plaza, New York, NY 10017.

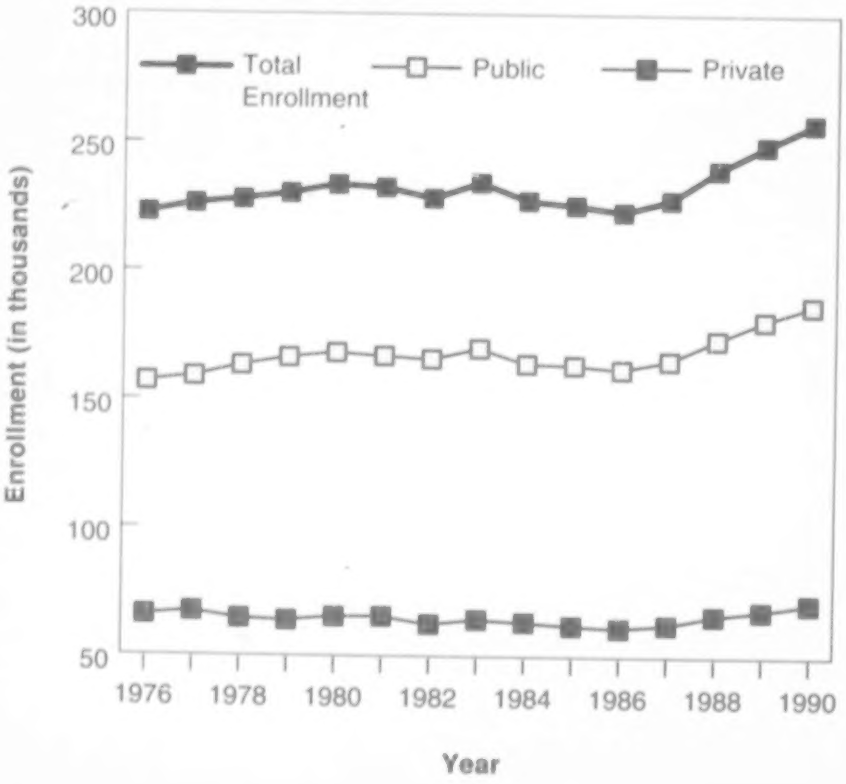
Enrollment Is Up at HBCUs

In 1990, 258,000 students attended the 105 historically black colleges and universities (HBCUs). This represents a 10 percent increase over a decade earlier, when 234,000 students attended these institutions.

- Most of the growth in enrollments at HBCUs occurred in the late 1980s; between 1986 and 1990, enrollments increased 16 percent, following a decline in the early part of the decade.
- Between 1986 and 1990, enrollments at public HBCUs rose from 162,000 to 187,000; at private institutions, they increased from 61,000 to 71,000.
- In 1990, the overwhelming majority of students enrolled in HBCUs attended four-year colleges (241,000); 172,000 attended public four-year institutions, and 69,000 were enrolled in private four-year colleges.
- More than three-quarters (76 percent) of students enrolled at HBCUs attended on a full-time basis in 1990.
- In 1989, 27 percent of African American bachelor's degree recipients earned their degrees from historically black institutions.

Source: National Center for Education Statistics, **Historically Black Colleges and Universities, 1976–90**. The report is available for $6.50 from the U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328, (301)953-7974. Refer to document number 065-000-00-511-5.

Fall Enrollment at HBCUs
1976 to 1990



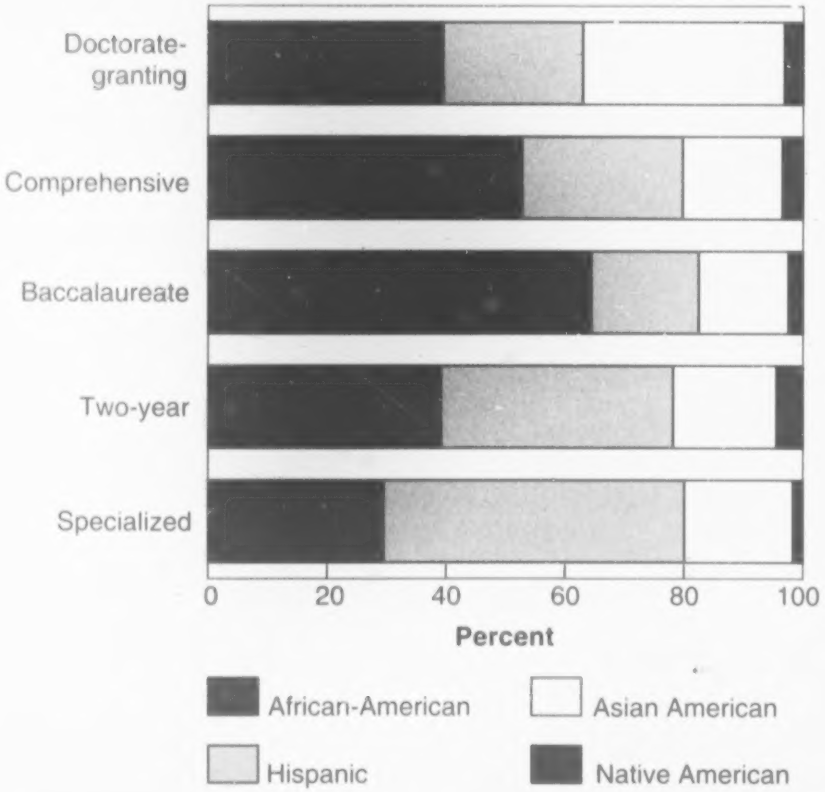
A Profile of Baccalaureate Colleges

A recent profile of baccalaureate colleges examines the elements that distinguish this type of higher education institution. The report found that:

- During the decade 1980–90, the average enrollment at baccalaureate colleges increased by 25 percent, from 914 to 1,145 students.
- In 1990–91, baccalaureate colleges had a smaller percentage (16 percent) of minority students than comprehensive, two-year, or specialized institutions (between 20 and 24 percent).
- Almost one in four baccalaureate college students (23 percent) were 30 years of age or older.
- In 1988–89, students at baccalaureate colleges were most likely to earn degrees in business management/marketing (21.2 percent), social sciences (16.9 percent), and education (9.7 percent).
- Full-time students at baccalaureate colleges were more likely to have some form of financial aid (65 percent) than students at other four-year institutions (47 percent) or at two-year colleges (39 percent).

Source: Cathy Henderson, **A Contemporary Profile of Baccalaureate Colleges**. ACE's Research Brief Series, Vol. 4, No. 5, 1993. The series is published eight times a year and is available for $58 for one year (10 percent discount for ACE members). To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

Minority Enrollment by Instititutional Type: 1990–91



Students

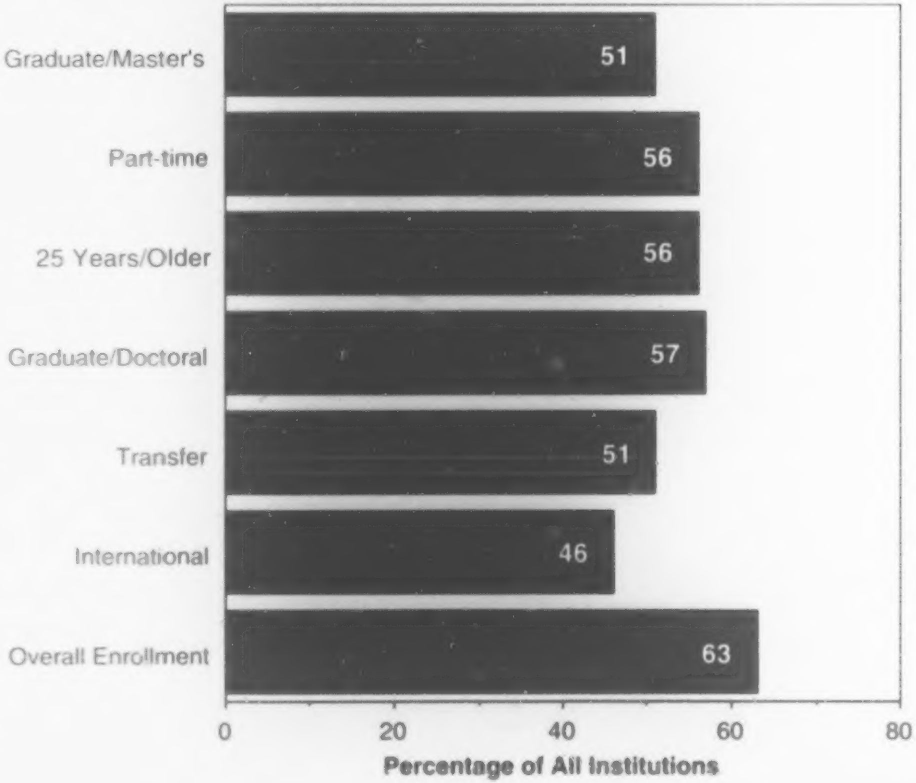
A Changing Student Profile

The effects of changing demographic patterns and work-force needs can be seen in shifts of higher education enrollment. According to a recent survey:

- The enrollment of students who are 25 years old or older continues to grow; five in ten institutions reported increases in this cohort between the 1991–92 and 1992–93 school years.
- Part-time enrollment also is rising, especially at two-year institutions, 56 percent of which reported increases.
- The number of college transfer students appears to be growing. Half (51 percent) of the schools reported an increase in the number of transfer students.
- Graduate enrollment—at both the master's and doctoral levels—increased between 1991–92 and 1992–93 at about two-thirds of all universities.
- The number of international students increased at 46 percent of all institutions, including about half of the four-year schools.

Source: Elaine El-Khawas, **Campus Trends, 1993**. The report is available for $13 ($10 for ACE members), prepaid, from the American Council on Education, Division of Policy Analysis and Research, One Dupont Circle, Washington, DC 20036-1193.

Percent of Institutions Reporting Enrollment Increases, 1991–92 to 1992–93

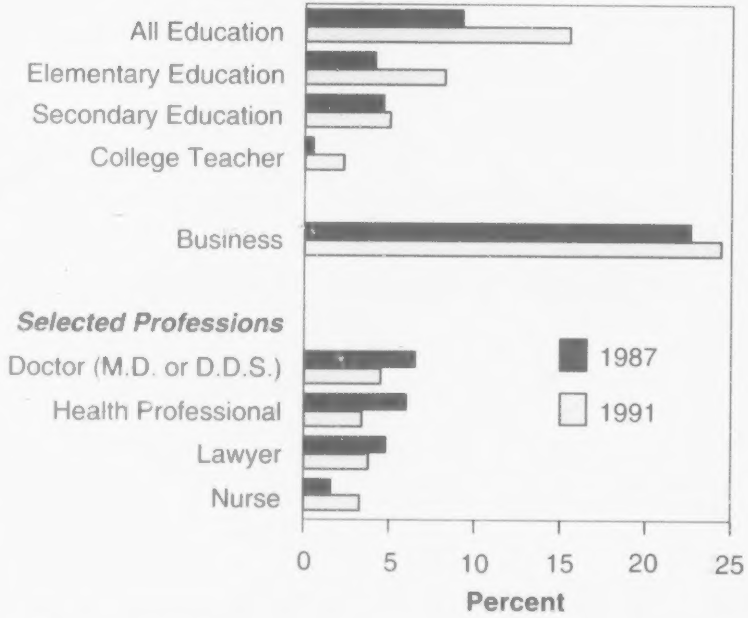


Study Reflects Changes in Probable Careers

Interest in careers in business or education generally increased, while the desire for careers in law or medicine fell among students who began college in 1987 and had completed four years by 1991, a study by the Higher Education Research Institute (HERI) shows.

- In fall 1987, 9 percent of full-time, first-year students at four-year institutions indicated that their probable careers would be in education. In summer 1991, a sample of the same students was surveyed, and 16 percent reported that education was their probable career choice.
    - — Elementary education was the choice of 4.1 percent of freshmen in 1987; in 1991, 8.2 percent of those students said the same thing.
    - — Secondary education was cited by 4.6 percent of first-year students in 1987; four years later, 5 percent of the same group of students mentioned this choice.
    - — College teaching was the preferred career of less than 1 percent of 1987 freshmen; in 1991, 2.3 percent of the same students indicated an interest in that profession.
- Among full-time freshmen who entered two-year colleges in 1987, 10.7 percent indicated an interest in education careers. Their responses in 1991 showed a larger share (14.8 percent) opting for such careers.
- Business was the probable career of 22.6 percent of 1987 freshmen at four-year institutions. By 1991, almost one-quarter of these students (24.4 percent) indicated business as a potential career.

Probable Careers of 1987 Freshmen, 1991 Fourth-Year Students



Source: Higher Education Research Institute (HERI), University of California, Los Angeles (UCLA), **The American College Student, 1991: National Norms for 1987 and 1989 College Freshmen**. The report is available for $15 (prepaid) from HERI, Graduate School of Education, 320 Moore Hall, UCLA, Los Angeles, CA 90024-1521.

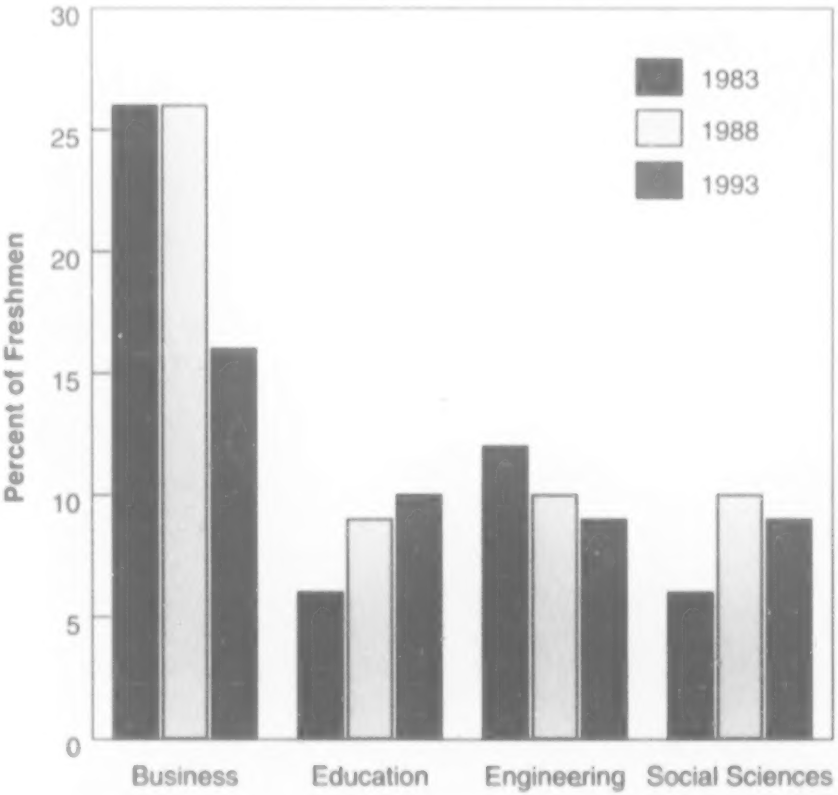
Freshman Interest in Business Increases

The Cooperative Institutional Research Program (CIRP) releases an annual survey, cosponsored by the American Council on Education (ACE), that provides characteristics of students attending American colleges and universities for the first time. The 1993 report revealed the following data on freshmen.

- In 1993, 16 percent of freshmen planned to major in business, an increase from 14 percent the previous year. Twenty-six percent of freshmen chose this field in 1983.
- The proportion of students planning to major in education increased. In 1983, 6 percent of freshmen said they would major in education; in 1993, the figure was 10 percent.
  - — Interest in majoring in education differs by gender. Among 1993 freshmen, 14 percent of women and 6 percent of men planned to major in education.
- The share of first-year students who said they would major in engineering declined during the 10-year period. In 1983, 12 percent of freshmen planned to major in engineering; by 1993, only 9 percent planned to do so.

Source: Eric L. Dey, Alexander W. Astin, et al., Higher Education Research Institute (HERI), **The American Freshman: National Norms for Fall 1993**. The report is available for $20, plus $3 shipping (prepaid), from HERI, UCLA Graduate School of Education, 405 Hilgard Ave., Los Angeles, CA 90024-1521.

Planned Freshmen Majors, 1983, 1988, and 1993

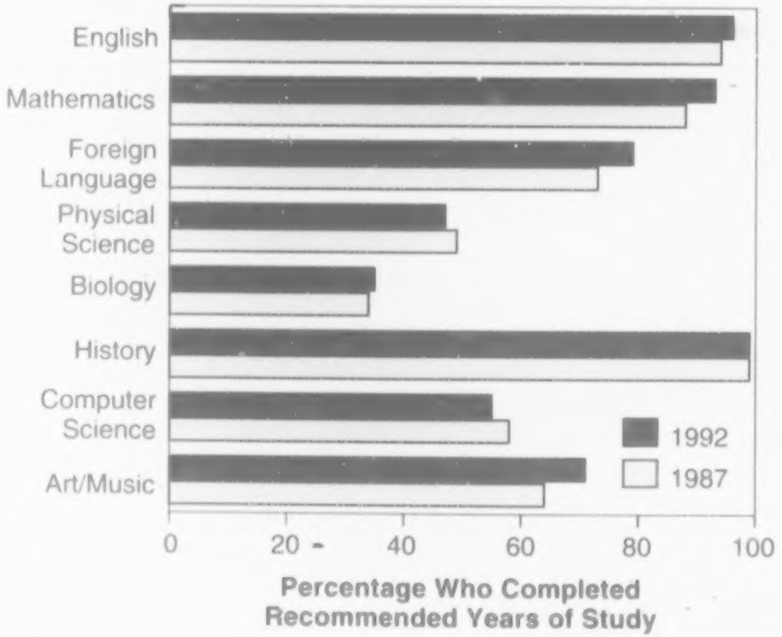


Freshmen Better Prepared for College

First-time, full-time freshmen last fall were better prepared for college than their predecessors five years earlier, a survey shows. A greater share of 1992 freshmen had completed or exceeded the recommended years of high school study in several academic subjects.

- About 96 percent of 1992 freshmen said they had met or exceeded the recommended four years of study in English, and 93 percent had completed at least the recommended three years of study in math. In 1987, 94 percent of freshmen reported having met the minimum requirement in English, and 88 percent said they had taken the proper amount of math.
- Seventy-nine percent of 1992 freshmen reported they had completed the recommended levels of study in foreign languages (two years), compared with 73 percent in 1987.
- Seventy-one percent of last year's freshmen said they had taken the recommended one year of art or music, compared with 64 percent five years earlier, and slightly more than one-third (35 percent) said they had completed the recommended two years of biological science. In 1987, 34 percent said they were prepared in biology.
- The share of freshmen reporting they had taken the appropriate amounts of history/American government remained virtually the same, 99 percent. However, the percentages who said that they were adequately prepared in physical science (47 percent vs. 49 percent) and computer science (55 percent vs. 58 percent) fell slightly during the five-year period.

Academic Preparation of College Freshmen, 1992 and 1987



Source: Eric L. Dey, Alexander W. Astin, et al., Higher Education Research Institute (HERI), **The American Freshman: National Norms for Fall 1992 and 1987**. The report is available for $20 plus $3 shipping (prepaid) from HERI, UCLA Graduate School of Education, 405 Hilgard Ave., Los Angeles, CA 90024-1521.

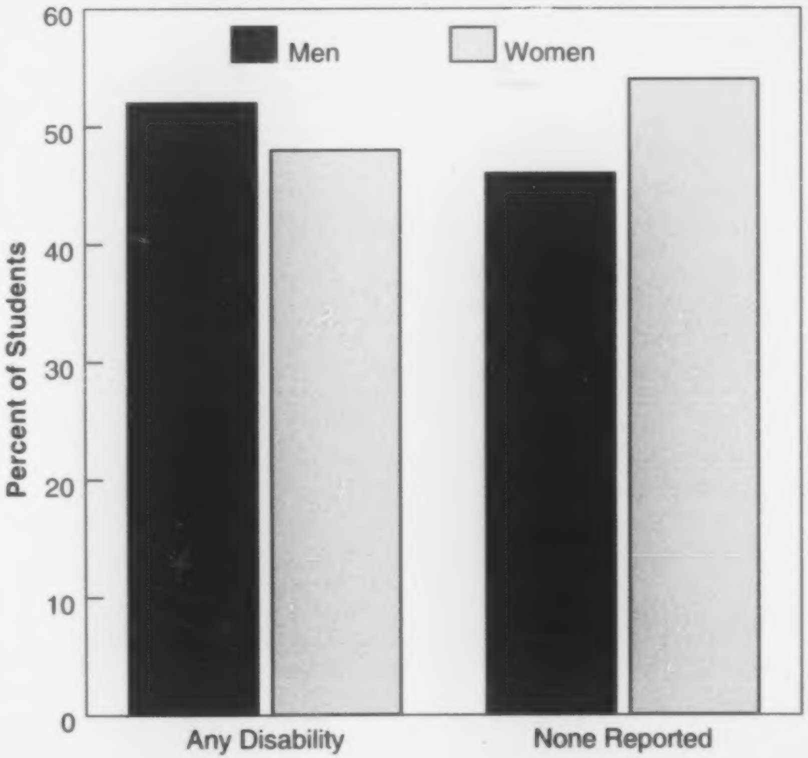
A Profile of Students with Disabilities

A report from the American Council on Education (ACE) reveals similarities and differences in the personal and family characteristics of 1991 freshmen with and without disabilities.

- Minority freshmen accounted for 16 percent to 17 percent of students in each group. The proportions of each type of minority student were quite similar, regardless of disability status: African American, 9 percent; Asian American, 3 percent; Mexican American, 2 percent to 3 percent; Native American, 1 percent to 3 percent; and Puerto Rican, 1 percent.
- The percentage of men was higher among students with disabilities than among other students (52 percent vs. 46 percent).
- While the median age of both groups was 18 years, students with disabilities were more likely to be older than those without disabilities. About 13 percent of those with disabilities entered college at age 20 or older, compared with 7 percent of other students.
- The median family income of $41,238 for students with disabilities was slightly lower than the median of $43,740 for other students. In addition, freshmen with disabilities were more likely to come from lower-income families (21 percent) than students without disabilities (17 percent).

Source: Cathy Henderson, **College Freshmen with Disabilities: A Statistical Profile**. The report is available for $10 (multiple copies are $7.50 each), prepaid, from the American Council on Education, Box FD, One Dupont Circle, Washington, DC 20036.

Differences between Men and Women by Disability Status: 1991 Full-time Freshmen



A Profile of Master's Degree Recipients and Students

Data from a recent study by the National Center for Education Statistics (NCES) provides this profile of master's degree students in 1989–90:

— Almost two-thirds (65 percent) were enrolled at public institutions.

— More than half (59 percent) were women.

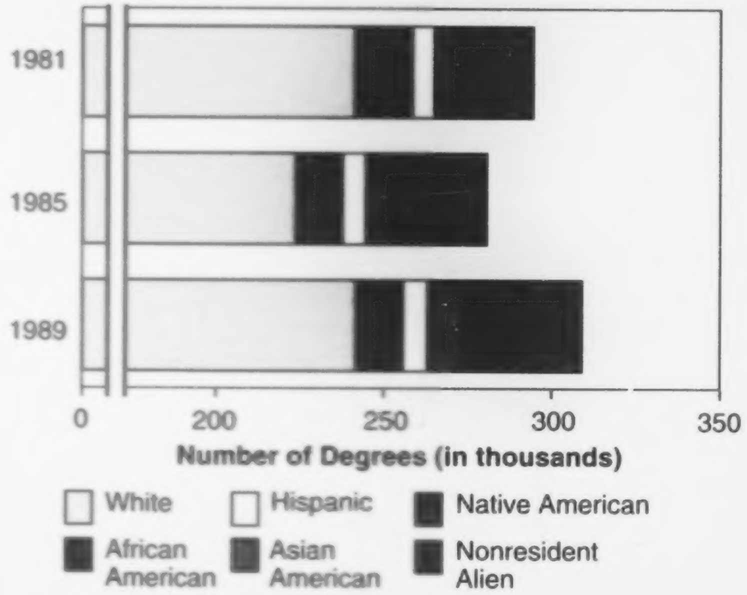
— Most master's degree students (82 percent) were white; 18 percent were minorities.

— More than half (52 percent) were 30 years of age or older.

— More than two-thirds (68 percent) were enrolled part time.

- The number of master's degrees awarded annually has quadrupled in the last three decades, from fewer than 75,000 in 1960 to more than 337,000 in 1991. A substantial portion of this growth can be traced to increases in practice- or career-oriented fields, such as education, business, engineering, public affairs, and the health professions.
- Gains in the 1980s were due primarily to an increase in the number of foreign students earning master's degrees. From 1979 to 1989, the number of master's degrees conferred increased slightly (3 percent), from 300,000 to nearly 309,000, but this growth was due largely to the 75 percent increase in the number of non-U.S. citizens earning master's degrees. During this period, the number of master's degrees awarded to U.S. citizens actually declined by 2 percent.
- Minority representation among master's degree recipients changed little from 1979 to 1989, growing from 10 percent to 11 percent.

Master's Degrees by Race/Ethnicity and Citizenship, 1981, 1985, and 1989



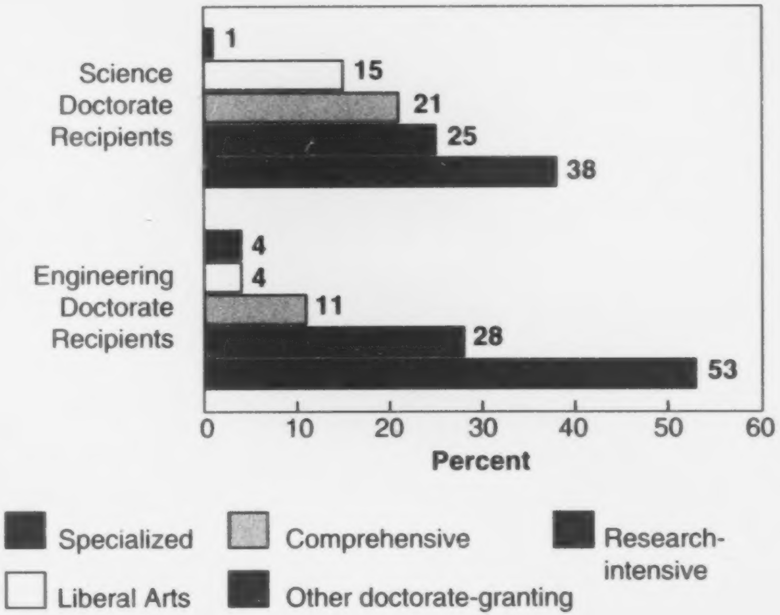
Source: Eileen M. O'Brien, **Master's Degree Students and Recipients: A Profile**, ACE Research Brief Series, Vol. 3, No. 1, 1992. The research brief series is published eight times a year and is available for $58 for one year. (ACE members receive a 10 percent discount.) To order, contact the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

Where Science and Engineering Ph.D.s Got Their B.A.s

A report released by the National Science Foundation revealed the following information about the types of undergraduate institutions that recent science and engineering doctorate recipients attended:

- Approximately one-seventh (14 percent) of graduates who earned science or engineering doctorates in the United States between 1985 and 1990 cited a liberal arts institution as the origin of their baccalaureate degrees. In contrast, 40 percent of Ph.D. recipients in these fields said they received their bachelor's degrees from research-intensive universities; 25 percent from other doctorate-granting universities; 20 percent from comprehensive universities; and 2 percent from specialized institutions.
- Liberal arts institutions provided the undergraduate education of 15 percent of science doctorate holders, almost four times the proportion for engineering doctorate holders (4 percent).
- Women science and engineering doctorate recipients were more likely to have earned their bachelor's degrees at liberal arts institutions than their male counterparts. Approximately 18 percent of women Ph.D.s in these fields attended liberal arts institutions, compared with 12 percent of men.
- Almost one-fifth (19 percent) of black science or engineering doctorate recipients received their undergraduate degrees from liberal arts institutions. Fourteen percent of whites, 10 percent of Asian Americans, and 7 percent of Hispanics and American Indians earned their baccalaureates at such colleges.

Baccalaureate Origins of Science and Engineering Doctorate Recipients



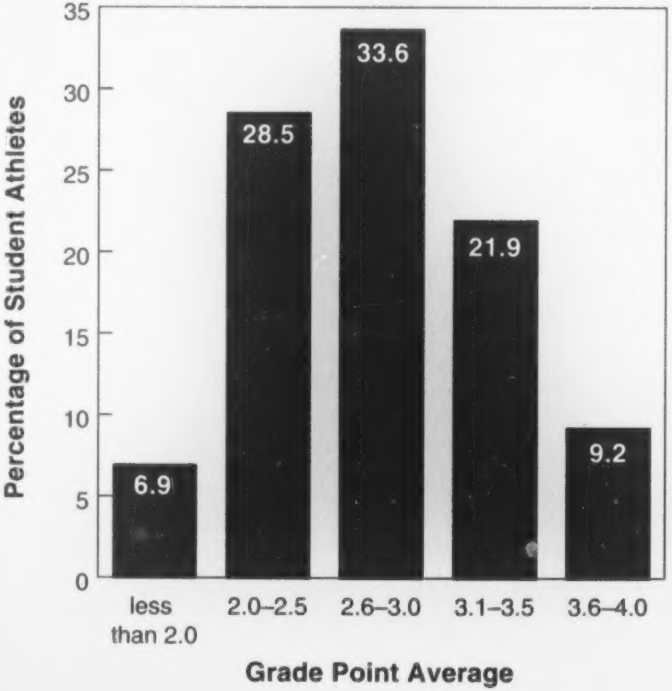
Source: National Science Foundation, **Undergraduate Origins of Recent Science and Engineering Doctorate Recipients,** NSF 92-332, Special Report. The report is available free of charge from the Division of Science Resources Studies, National Science Foundation, Washington, DC 20550.

A Profile of Student Athletes

Several recent efforts have been made to ensure the academic integrity of intercollegiate sports. A College Football Association (CFA) survey details the personal backgrounds, academic successes, financial resources, and recruiting experiences of student athletes from all sports.

- Ninety-three percent of the student athletes indicated that they would have attended college even if they had not been involved in athletics.
- When comparing high school grade point averages (GPAs), 94.1 percent of the female athletes earned better than a 2.5 GPA, while 88.4 percent of the male athletes had better than a 2.5 GPA.
- The impact of the National Collegiate Athletic Association (NCAA) legislation which increases the high school GPA requirement from 2.0 to 2.5 for initial eligibility and financial aid will be felt by African American male student athletes more than any other group. Of the total number of males who responded to the survey, 17 percent had a high school GPA of less than 2.5, and 47.6 percent of this number were African American.
- SAT scores revealed that 3.5 percent of all respondents scored below 700, the minimum score required for eligibility and financial aid as a freshman. Of those student athletes who scored below 700, 78.5 percent of African American and 57.6 of white student athletes maintained a 2.0 or better college GPA.
- SAT scores by sport show that 18.1 percent of men's basketball players and 10.7 percent of women's basketball players scored below 700. Other sports surveyed reported less than 5 percent with scores below 700.

College GPAs of Student Athletes



Source: College Football Association, **1993 All Sports Student-Athlete Survey.** This publication is distributed by the College Football Association, 6688 Gunpark Dr., Ste. 201, Boulder, CO 80301, (303)530-5566.

Student Financial Aid

A Profile of State Grant Aid

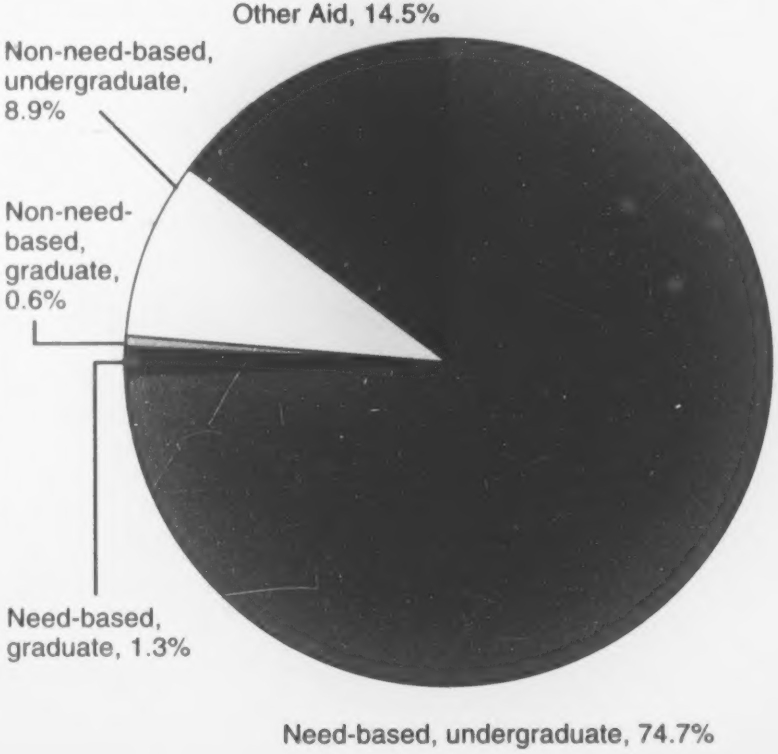
State grant aid to college students is expected to rise, according to a survey released by the National Association of State Scholarship and Grant Programs. The report found that:

- For the academic year 1991–92, states expected to award more than $2.3 billion in grant aid to more than 1.7 million postsecondary education students.
- Need-based and non-need-based state aid for undergraduate and graduate students rose by 4 percent between 1990–91 and 1991–92, from $1.9 billion to just under $2 billion.
- Eleven states expected to award less money in 1991–92 than in 1990–91, but five of those states said aid would drop by less than 1 percent. Massachusetts projected the largest drop—48 percent.
- Undergraduate, need-based aid rose to $1.774 billion, up from $1.675 billion in 1990–91, a 4.1 percent increase. This compares with larger gains of 7.5 percent between 1989–90 and 1990–91, and 8.1 percent from 1988–89 to 1989–90.
- The number of undergraduates receiving need-based grants rose slightly (by 1.3 percent), from 1,397,000 in 1990–91 to 1,416,000 in 1991–92, and the average award rose by 3 percent, from $1,197 to $1,230.

Source: National Association of State Scholarship and Grant Programs, **23rd National Association of State Scholarship and Grant Programs Annual Survey Report, 1991–1992 Academic Year**. The report is available for $5 from the Research and Policy Analysis Division, Pennsylvania Higher Education Assistance Agency, 660 Boas St., Towne House, Harrisburg, PA 17102.

State Grant Aid by Type, 1991–92

Total Aid = $2.3 Billion



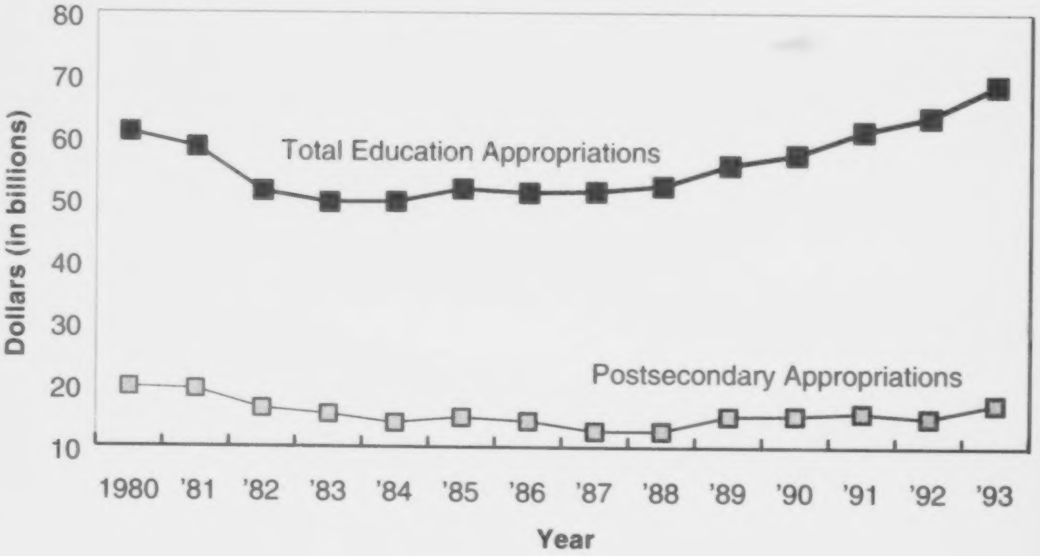
Postsecondary Funding Declines

Between fiscal year 1980 and fiscal year 1993, federal appropriations for postsecondary education other than university research declined by 13 percent in constant 1993 dollars, from $19.6 billion to $17.0 billion.

- However, when university research funds are included, postsecondary appropriations increased slightly during this period, from $29.8 billion to $32.6 billion.
- Overall, federal appropriations for all education programs increased from $60.7 billion to $68.4 billion between fiscal year 1980 and fiscal year 1993.
- Nonfederal funds generated by federal legislation (e.g., funds from federally guaranteed loans) increased by 123 percent during the 13-year period.

Source: U.S. Department of Education, National Center for Education Statistics, **Digest of Education Statistics, 1993**. The report is available for $33.00 from the U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328. The document number is 0-16-042052-0.

Federal Support for All Education Programs, FY 1980 to FY 1993 (in constant 1993 dollars)



Who Gets Grants and Who Gets Loans?

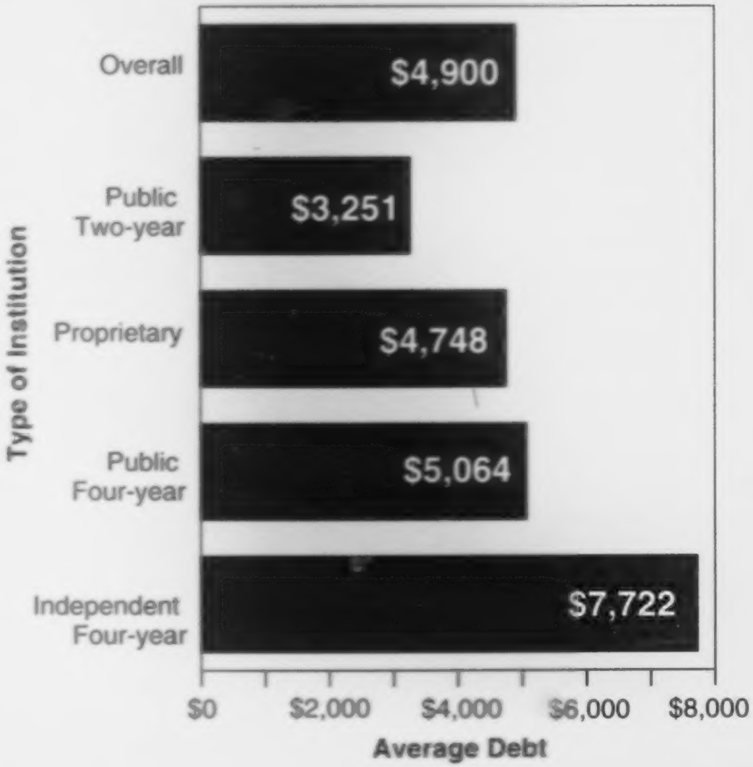
A recent study by the Congressional Budget Office (CBO) shows that in 1990, grants from all sources made up 54 percent of all financial aid to undergraduates, loans made up 35 percent, and work-study and other types of aid made up the remaining 11 percent. Analyzing data from the National Postsecondary Student Aid Study, CBO found that:

- Twenty percent of all undergraduates received Pell grants. However, the proportion varied by attendance and dependency status: 46 percent of full-time independent students; 18 percent of part-time independent students; 19 percent of dependent full-time students; and 16 percent of dependent part-time students received Pell grants.
- Almost half of the seniors (47 percent) at four-year independent colleges had taken out a loan, compared with more than one in three seniors (37 percent) at four-year institutions, two in five proprietary school students (39 percent), and one in four second-year students (24 percent) at public two-year colleges.
- The average debt of all undergraduates who took out loans was $4,900. Students attending public two-year colleges had the lowest average debt.

Note: This report defines "independent" students as those age 24 or older; veterans of the armed forces; graduate students not claimed as dependents by their parents; or students who are married, have dependents, or meet other specific criteria.

Source: Congressional Budget Office, **The Use of Grants and Loans to Help Finance Undergraduate Education, 1992**. The report is available free of charge from the Congressional Budget Office, Second and D Sts. SW, Washington, DC 20515.

Average Debt of Undergraduates Who Received Loans, 1989–90



Sources of Support Vary by Citizenship Status

The number of foreign (nonresident alien) graduate students in science and engineering has increased rapidly in the past several years. These students differ from students who are U.S. citizens in that a larger share of them (85 percent vs. about 56 percent) are enrolled full time, according to a recent study by the National Science Foundation. In addition, their sources of financial support differ. The study shows that:

- Assistantships were the primary financial support for most of the 1991 foreign science and engineering doctorate recipients (71 percent). Nearly half (47 percent) reported support from research assistantships, and nearly one-quarter (24 percent) said they had a teaching assistantship. Less than half of U.S. Ph.D. graduates (45 percent) reported primary support from assistantships—29 percent from research and 16 percent from teaching.
- Thirteen percent of U.S. doctorate recipients in science and engineering reported federal funds as their primary source of financial support, and 8 percent reported primary support from federal fellowships. In contrast, only 3 percent of foreign doctorate recipients cited the U.S. government as their main source of financial support.
- More than one-quarter (28 percent) of U.S. graduate students reported having received primary support from their families (i.e., their own or their spouse's earnings or family contributions). Only 8 percent of foreign doctorate recipients reported such support.
- Twelve percent of foreign doctorate recipients in 1991 indicated that their primary support came from "other" sources, including aid from foreign governments. Only 2 percent of U.S. Ph.D. recipients cited "other" sources as their primary source of financial support.

Primary Sources of Support for 1991 Science and Engineering Doctorate Recipients, by Percent

Source	U.S. Citizens	Nonresident Aliens
Assistantships	45.1	70.9
Business/Employer	1.8	0.9
Federal Support	12.8	2.7
Loans	3.4	0.3
Student and Family Support	28.3	8.2
University Fellowships and Other University Funding	6.6	5.3
Other	2.0	11.7

Note: This chart excludes information on non-U.S. citizens who are permanent residents.

- Loans were identified as the primary source of support by 3 percent of the U.S. Ph.D. recipients and by less than 0.5 of foreign doctorate recipients. (The study does not indicate how many doctorate students had borrowed funds during their graduate studies.)

Source: National Science Foundation, **Foreign Participation in U.S. Academic Science and Engineering: 1991**, NSF 93-302. The report is available free of charge from the Division of Science Resources Studies, National Science Foundation, 4201 Wilson Blvd., Room 965, Washington, DC 22230.

Sources of Financial Support Up for Doctorate Recipients

The number of sources of financial support for doctorate recipients increased over the past decade (1982 to 1992), according to a report released by the American Council on Education. It also reported that:

- The most common sources of financial support for doctorate recipients were self/family (81.4 percent), teaching assistantships (48.5 percent), and research assistantships (43.8 percent).
- More doctorate students are depending on loans for financial support. In 1992, about one-third of doctorate recipients (30.6 percent) took out Guaranteed Student Loans, while in 1982, only 13 percent took out National Direct Student Loans.
- With the exception of Asian Americans, all other minorities were more likely than white students to have relied on Guaranteed Student Loans to complete their doctorates.

Source: Cecilia Ottinger, Robin Sikula, and Charles Washington, **Production of Minority Doctorates**, ACE Research Brief Series, Vol. 4, No. 8, 1993. The series is published eight times a year and is available for $58 (ACE members receive a 10 percent discount) from the Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

Graduate School Financial Support of 1992 Doctorates

	Teaching Asst.	Research Asst.	Other University	Business/ Employer	Self/ Family	GSL Loan	Other Loans
	%	%	%	%	%	%	%
Total	**48.5**	**43.8**	**27.8**	**8.5**	**81.4**	**30.6**	**10.6**
White	49.6	44.1	27.7	8.7	82.2	30.5	10.5
African American	27.2	25.4	32.3	6.3	81.4	36.4	13.8
Puerto Rican	41.8	34.7	37.6	8.9	75.6	44.6	14.6
Mexican American	43.9	38.0	37.6	2.4	78.0	42.0	15.1
Other Hispanic	54.0	41.3	31.6	7.4	80.8	37.5	13.0
Asian American	46.7	60.9	23.2	8.1	70.7	22.5	7.4
Native American	41.3	40.0	23.3	6.7	81.3	36.0	18.0

Note: In this table, a recipient counts once in each source category from which he or she received support. Because students indicate multiple sources of support, the percentages sum to more than 100 percent.

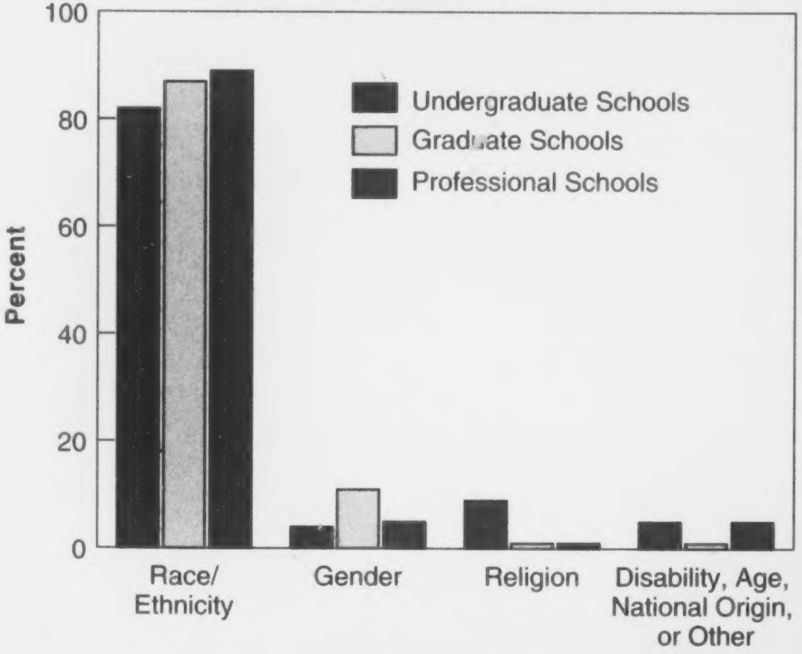
Race/Ethnicity Not Sole Determinant of Minority Scholarships

According to a report released by the General Accounting Office, race or ethnicity was rarely the sole criterion for minority-targeted scholarships* awarded in academic year 1991–92.

- A small percentage of minority-targeted scholarships were solely race or ethnicity based. They represented 5 percent of scholarships at undergraduate schools, 15 percent at graduate schools, and 18 percent at professional schools. Other factors included in the criteria were gender, religion, disability, age, and national origin.
- Minority-targeted scholarships made up a small proportion of all scholarships, representing 5 percent of scholarships at the undergraduate level, 3 percent at the graduate level, and 10 percent at professional schools.
- The actual dollar amount of minority-targeted scholarships also represented a small proportion of total scholarship dollars. For undergraduate and graduate schools, they represented 4 and 5 percent (respectively) of all scholarship dollars. They represented a larger share (14 percent) at professional schools.
- Private endowments were the major funding sources for minority-targeted scholarships at undergraduate schools (58 percent) and professional schools (29 percent). For graduate schools, income from tuition and fees was the largest source of funding (32 percent).

**Minority-targeted scholarships are scholarships for which some form of minority status is an eligibility requirement.*

Percent of Minority-Targeted Scholarship Dollars by Criteria, 1991–92



Source: United States General Accounting Office, **Higher Education: Information on Minority-Targeted Scholarships**, January 1994. Copies of this report may be obtained by calling (202) 512-7014. Refer to document number GAO/HEHS-94-77.

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